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ABSTRACT

A quasi-experimental field research project was carried out in twenty intact classrooms in eight different schools in the central area of the upper peninsula of Michigan across two semesters. Five hundred and twenty-two public school students participated in a static-group comparison research project, designed to effect changes in student sex role stereotypic attitudes and information accuracy regarding women's activities in the world of work. The intervention in this two-by-two-by-two-by-three factorially designed research project was carried out by two counselor-teachers, members of the project team. They went into the experimental condition groups once a week and presented, through a variety of approaches, information about career choice options for men and women. Though findings did not carry out the hypotheses of the research staff, some important information did emerge that will be useful for further attempts to eliminate sex stereotyping in vocational education and occupations. Results included some minimal influence of the urban-rural dimension and the treatment dimension upon sex-role stereotypic attitudes, no effects upon information accuracy scores, and a significant treatment effect upon career choice shifts. (Appendixes include (1) facsimile of test instrument, (2) lesson plan outlines for fifth, ninth, and twelfth grades, (3) description of role model teams, (4) teacher and student evaluations, (5) individual student data, and (6-9) Newman-Keuls Procedures. (Author/CSS)

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Final Report

Project No. 498AH70143
Grant No. G-007701966

Research to Eliminate Vocational Education Role Stereotyping Effectively

REVERSE

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The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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PREFACE

Project REVERSE was a cooperative effort on the part of many members of the educational community who are concerned with the detrimental effect sex-role stereotyping has had on young people, particularly as it effects their career and vocational choices.

Notable in their cooperation and willingness to be of help are Thomas M. Pierson, Ed.D., Director of Career/Vocational Education of the Marquette-Alger Intermediate School District, area superintendents Richard Klahn of the Marquette School District; Allen Ahola, Gwinn School District; Werner Peterson, Powell Township; Norman Goethe, Nice Community School District, and Donald Parling of the Mathias Township School District.

We are also indebted to those principals, curriculum coordinators and teachers who graciously allowed us to come into their schools and classrooms and who aided us in our efforts with the experiemental groups. Henry Sherry and Donna Muehrcke of Gwinn, Donald Vitto, Kenneth Lindberg and Katherine Kososki, Westwood High School; William Hart, Paul Kotila, Gerry Sullivan, Thomas Baldini and Richard Ryan, Marquette Senior High School; John Arenz and Cherie Lowe, Parkview Elementary School, Gladys Pickford, Big Bay School, and Bernard Montiegel of Trenary School.

Our thanks, too, to the superintendents, principals and teachers whose schools and classes were used for testing the control groups.

Above all, we wish to express our thanks to those students who willingly, and sometimes enthusiastically, took part in the research project. We hope that they learned a portion of what we did in the twenty-four weeks that the REVERSE team was in the schools.

Cilla Reeseman helped us write the proposal and read our final report. Joel West and Mary Zimmer set up our computer program and we are grateful to all of them for their patience, efforts and expertise.

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INTRODUCTION

This is the final report of Project REVERSE (Research to Eliminate Vocational Education Role Stereotyping Effectively). The project, funded by the United States Department of Health, Education and Welfare, Office of Education, was a research project in vocational education and was submitted under the sex-role stereotyping and sex bias priority of the 1977 fiscal year.

REVERSE was a field research and demonstration project which proposed to design, develop, test and analyze activities to reduce sex role stereotyping and sex bias in vocational education and occupational choices among students of high school and elementary school ages. By means of direct classroom intervention, the REVERSE project team attempted to produce measurable changes in sex bias attitudes, to change vocational behavior of students, to provide support to students entering non-traditional occupational fields and to produce measurable change in the accuracy of vocational and occupational information bearing on sex stereotyping.

Students from twenty different classes at three grade levels, five, nine and twelve, were the subjects of the research. Ten of these classes were in schools defined as rural and ten in schools defined as urban. Half of the classes were assigned to the control group condition and the others were assigned to the treatment group condition. The latter groups were those in which there was direct intervention by the project staff.

Project REVERSE used a modified version of an instrument designed for testing sex stereotyped attitudes, knowledge of the labor market and post high school plans. That instrument was developed by the University of Houston Equal Vocational Education Project. It was used for both the pre-measurement and post-measurement. Shifts in scores were then noted.

Two members (counselor/teachers) of the project team developed lesson plans and intervention strategies. They met with each of the experimental classes for one hour per week during regularly scheduled class periods.

The report of the project which follows will detail the project plan, methods used, findings, conclusions and recommendations of the REVERSE project staff. The report is divided into two major components; the Process Report and the Research Analysis Report. The Process Report includes the background of the project, the procedures used, the method of intervention and the conclusions of the project staff. The second part of the report contains a detailed report on the research process, the analyses, the results and an interpretation of those results.

The appendices at the end of the report include lesson plans, student and teacher evaluations, a description of role model teams, a facsimile of the instrument for testing, the individual student data and several analyses.

SUMMARY OF FINDINGS

Although the findings of the research project, REVERSE, did not, for the most part, carry out the hypotheses of the project staff, they did contribute some important information in regard to further attempts to eliminate sex role stereotyping as it effects choices in vocational education and occupations.

Overall, it was found that the intervention treatment had little effect on the stereotypic attitudes young people have about sex roles. Where significant shifts did occur, primarily at the ninth grade level, the differences occurred only when the urban-rural dimension was a factor. It was found that the rural ninth graders had significantly lower sex role stereotypic attitude scores on both the pre-treatment and post-treatment measures. However, the ninth grade rural students who were members of the experimental group produced statistically significantly higher sex role stereotypic attitude scores in the post-treatment measure than did the ninth grade rural control groups. The results for the urban ninth grade students were just opposite to that of their rural counterparts. Post-treatment measurement for the ninth grade urban students indicate that intervention strategies did effect the attitudes of this particular group. While the attitudes of the control group of ninth grade urban students measured a shift toward more sex role stereotyping, the ninth grade students in the experimental groups measured less sex role stereotypic attitudes after the treatment period.

A number of observations might be made about these findings. It would appear that intervention at the twelfth grade level is too late to have any significant effect upon the attitudes of high school seniors as to sex role stereotyping. Ninth grade seems to be a crucial time for young men and women as they begin to crystallize their thinking about sex roles. This is true particularly for those students in the larger urban consolidated schools. Intervention at this point in a student's life may act as a deterrent to polarization of sex role attitudes.

At the fifth grade level there was a significant treatment effect, but in the opposite direction from that which was hypothesized by the REVERSE Project team. The experimental condition groups had higher sex role stereotypic scores than did the control groups. Further, the urban control group measured less stereotypic attitudes than either the rural control group or urban experimental control group condition. The project staff is unable to offer any adequate explanation for this result, although it may be that the instrument used was not sensitive to students at this age level.

Results of the research project did not reflect a change on the part of students as to the accuracy of vocational and occupational information bearing on sex role stereotyping. The project staff believes this may be due to the instrument used. The portion of the test dealing with informational questions was somewhat ambiguous and the staff, themselves, had some questions as to which were the desired answers.

Finally, the self-reported shift in vocational and occupational choices, although not as great as had been hypothesized, was significant. Five percent of the students responding reported a shift in occupational choices towards a non-traditionally sex stereotyped vocation. It would seem that students were at least being made aware that they did have options for their lives and that a number of students were deciding to exercise career options in a less stereotypic way than they had before being exposed to the intervention treatment.

PART I

PROCESS REPORT

PART I - PROCESS REPORT

BACKGROUND

Statement of Problem

To some, the term sex role stereotyping has become a cliche--a pejorative used by activists to describe any attitude of which they disapproved. After all, isn't it true that women can and are entering all types of employment fields and careers including those traditionally filled by men only? One need only pick up a local newspaper to see an article written about a woman truck driver, garage mechanic, construction worker, etc.

Neither fact nor experience bear out these often heard generalizations. Sex role stereotyping is alive and thriving, particularly in vocational education. As in other forms of stereotyping where a group of people are categorized and labled, sex stereotyping has led to over simplification and arbitrary descriptions about what is "male" and what is "female". Women and men are expected to play certain roles and seek occupations "appropriate" for their gender.

This kind of stereotyping has had an insidious effect on both men and women. It has been detrimental for both males and females in realizing their potential, and has limited their vocational options. Nowhere is this more true than in occupational choices and in work-related education. Despite the thrust of recent legislation aimed at eradicating discrimination in employment and education, females, although comprising two-thirds of all secondary students in vocational education,[1] are concentrated in three areas: home economics, health, and office work.[2] Forty-nine percent of these are in home economics, a field in which only two percent of total enrollments are geared toward a gainful employment. The other two areas of female concentration, health related fields and office work, are relatively low paying.[3]

This is true even at a time when increasing participation by women in the labor force has resulted in 101.2 percent gain over the fifteen year period from 1950 to 1975; a growth rate that is more than twice that of the civilian labor force[4]. In Michigan, the proportion of women in the

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[1]Women's Rights Project, How to Erase Sex Discrimination in Vocational Education, (American Civil Liberties Union Foundation, 1977), p. 4.

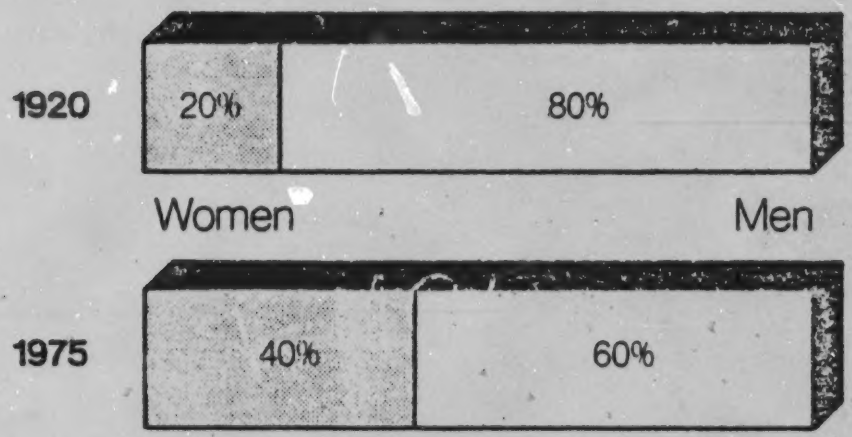
[2]Ibid. p. 5.

[3]Ibid.

[4]Sum, Andrew, M., "Female Labor Force Participation: Why Projections Have Been Too Low," Monthly Labor Review, (U.S. Department of Labor, Bureau Statistics, July, 1977), p. 18.

labor force increased from 27.3 percent in 1950 to 44.2 percent in 1974.[5] In 1920, women in the U.S. accounted for 20 percent of the total work force. Today, they comprise almost 40 percent.[6]

WOMEN IN THE LABOR FORCE [7]



The fact remains, however, that women, despite the gains made in labor force participation, have not fared very well economically. The gap between the earnings of men and women has widened. Men's earnings exceeded women's by 56 percent in 1955, while in 1974 men earned 75 percent more than women.[8] According to the U.S. Department of Labor, females living in poverty account for 58 percent of the poor in the United States.[9] The major reason for the relatively low economic status of women is that women working outside the home have remained concentrated in those low paying and low skilled occupations which have been the traditional feminine job domains.

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[5] Working Women in Michigan: Myth vs. Reality, (Michigan Employment Security Commission, August, 1975), p. 3.

[6] U.S. Department of Labor, 1975 Handbook on Women Workers, (Employment Standards Administration, Women's Bureau, 1975), Bulletin 297, p. 3.

[7] Ibid.

[8] The Earnings Gap Between Men and Women, (U.S. Department of Labor, Employment Standards Administration, Women's Bureau, 1976), p. 1.

[9] Incomes, (Employment Standards Administration, Women's Bureau, November, 1977), p. 1.

In recent years, educators, women's groups and researchers have been exploring the reasons for this labor market compartmentalization. It is now generally recognized that the process starts at an early age and socialization continues throughout life. Not only is there little encouragement, but there is lack of information given to young women about occupations and careers which have been traditionally considered masculine.

Many women have been so caught up in the myth of marriage, motherhood and "happily ever after" that they have simply not considered alternative plans for their lives, except in terms of short term employment until such a time as they marry. They are, for the most part, unaware of the facts which belie this myth.

90% of all women work at some time in their lives.[10]

More than half of all women 18 to 64 years of age are working outside the home.

31% of women hold full time jobs, while 11% work part-time.

58% of all women workers are married and living with their spouses.

One out of eight families are headed by a woman. Of these, 54% are in the labor force.

About 13.6 million mothers with children under 18 are in the labor force (a nine fold increase since 1940).[11]

Even when the facts are pointed out, many young women fail to see the implications for their lives. It is only years later when they find themselves in low-paying dead-end jobs or on welfare that they realize that they should have prepared themselves for a more satisfactory and renumerative career.

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[10]Bryant, Barbara, American Women Today and Tomorrow, (Market Opinion Research, U.S. Government Printing Office, 1977), p. 12.

[11]U.S. Department of Labor, 1975 Handbook on Women Workers, (Employment Standards Administration, Women's Bureau, 1975), Bulletin 297, p. 3.

The experience of Northern Michigan University's Women's Center staff and volunteers who have made presentations to the area high schools over the past four years clearly indicates that adolescent women have little or no knowledge of occupations which are not already female dominated. As the Project Baseline Table indicates (see Table 1), such occupations offer wage structures which will perpetuate income differentials according to sex.

In Michigan, as elsewhere, there has been an increased emphasis on articulation of secondary school vocational programs with post secondary certificate, associate degree and apprenticeship programs. (Northern Michigan University, 1974.) While providing for a smoother transition for students who begin a vocational-technical curriculum at high school level, this trend inevitably puts the student whose knowledge of, or access to, vocational courses in high schools is limited at a clear disadvantage.

The Women's Center for Continuing Education of Northern Michigan University has over the past five years, been working to reduce or ameliorate the effect of vocational and career sex role stereotyping by offering to the area schools the presence of role model teams in the classrooms. The role model teams are groups of men and women, generally employed in non-traditionally sex stereotypic jobs who volunteer to go into the classrooms to speak about their jobs, training, life style, etc. A sample team might be made up of four persons, a female bank manager, a female carpenter, a male nurse and a male telephone operator. Each of the team members would speak briefly about his/her job and then answer questions. Approximately 100 persons have volunteered to serve as role model team members during the past four years. (See Appendix C)

The success with which the role model teams have been received, convinced us that young men and women, when given information and evidence that vocational choices need not be limited to those fields traditionally considered properly male or female, would exercise greater freedom in occupational choices. The underlying thesis of this project as it was proposed, was that rational, informed decision-making will lead increased numbers of young women and men to choose vocational education courses and occupation's on bases other than the occupation's traditional stereotypical sex orientation.

Project Setting

Before proceeding with a description of the project and its results it is important to describe the social and geographic setting in which the project was conducted. The Upper Peninsula of Michigan is a low population density area, dominated by extractive and structural industries, with relatively undeveloped transportation and communication systems. The unemployment rate for the Upper Peninsula for the month of May 1978 was 11.8 percent and for the target area (Marquette and Alger counties) 9.3 percent. It is significantly higher than the State of Michigan's

TABLE 1

Project Baseline

OE Title	Total	Male	Female	% Female	Average Entry Earnings for Skilled Workers
air conditioning	67,620	64,956	2,664	4.0	$5.12/hr.
appliance repair	17.472	16,965	507	3.0	4.87/hr.
auto mechanics	228,364	223,065	5,299	2.3	6.15/hr.
auto body and fender	57,284	56,202	1,082	0.9	6.52/hr.
carpentry	95,706	94,255	1,451	1.5	7.55/hr.
electricity	60,791	60,201	590	1.0	8.19/hr.
masonry	29,992	29,756	236	0.8	7.87/hr.
plubming and pipefitting	37,311	37,277	34	0.1	8.15/hr.
other construction and maintenance	79,623	78,057	1,566	2.0	7.69/hr.
electrical occupations	81,493	80,584	909	1.1	5.04/hr.
metalworking occupations	291,662	288,581	3,081	1.0	4.21/hr.
refrigeration	11,198	10,384	814	7.3	6.25/hr.
child development	138,589	5,565	133,024	96.0	3.13/hr.*
clothing and textiles	364,659	7,163	357,496	98.0	2.61/hr.
cosmetology	48,810	2,940	45,870	94.0	3.75/hr.*
dental hygienist	4,754	170	4,584	96.4	4.28/hr.*
diling and office machines	398,226	70,772	327,454	82.2	2.40/hr.*
food and nutrition	222,552	191,805	191,805	86.2	3.60/hr.*
practical nurse	82,896	78,302	78,302	94.4	3.00/hr.*
steno/secretarial and related	550,686	528,863	528,863	96.0	3.16/hr.*
typing and related	628,414	500,517	500,517	79.6	2.73/hr.*

*Converted to an hourly wage based on 2,080 working hours per year.

May, 1978 unemployment rate of 6.6 percent.[12] Marquette is the largest city in the Upper Peninsula with an approximate population of 25,000. It is the location of Northern Michigan University, the Marquette Branch of the State prison, the Lake Superior and Ishpeming Railroad ore docks, the Upper Peninsula Generating Company's power plants which service the surrounding ore mines and Marquette General Hospital, a regional medical facility. There is also some light industry and a growing amount of construction.

Particular occupations which are relevant to the regional economy and which provide employment opportunity include: construction and maintenance crafts, engineering drafting technologies, banking and financial management, and transportation, communication, electronics and mechanical craft, and repair work. Like many such areas, the values of the Upper Peninsula are traditional and its communities often preserve strong ethnic heritages, especially those of the Finnish culture. It might be likened to the Appalachian regions of the Mid-Atlantic and Southern States.

Scope of Project

In 1977, the Women's Center proposed a research and demonstration project to design, develop, test and analyze activities which would reduce sex role stereotyping and sex bias in vocational education and occupational choices among junior and senior high school students. Ready to move from mere observation of the determinants of career choice to positive strategies of intervention which emphasized expanded choice and diminished sexually determined vocational choices, the Women's Center proposed to field and test demonstration models which could be replicated in other areas.

Having reviewed the research literature on similar projects we found that Project Equal Vocational Education (EVE), carried out in Houston, Texas seemed to speak to the problems which we proposed to address. EVE demonstrated the feasibility of entering a traditional high school setting and providing limited intervention in the form of group discussions, supportive counseling for women choosing non-traditional vocational courses, and community public relations. Nevertheless, project REVERSE differs on several important dimensions. While the EVE project was carried out in one high school with women students only, REVERSE project included work in several different high schools at various grade levels in both non-metropolitan urban and rural settings. Further, it was the belief of the project staff that intervention strategies should be carried on with both men and women, not only to enhance a supportive atmosphere in which women might make vocational decisions about non-traditionally female careers, but also to open up the options for young men. Sex

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[12]Figures obtained from Michigan Employment Security Commission, Marquette Office, July 3, 1978.

stereotyping is a two way street and, although it is true there are many more vocations which are considered traditionally male, still there are fields which men have not been encouraged to enter because they have been considered feminine domains.

The static group comparison of Project REVERSE used a 2 X 2 X 2 X 3 factorial design. Independent variables include, intervention condition, urban-rural dimension, gender and grade level. Project staff developed lesson plans and intervention strategies which were taught one hour per week in each of the ten experimental classrooms.

Objectives

The major objectives of the project were couched in terms of measurable changes in the attitudes and vocationally-related behavior of students exposed to the project, which are significantly different from those observed in a control group. In addition, the project had objectives which refer to the feasibility of implementing such projects at lower grade levels and to the demonstration of a replicable model for the 9th and 12th grade groups.

The objectives of the project were:

1. To produce measurable change in the level and type of sex stereotyping and sex bias attitudes expressed by students, over a single school year, as registered in responses to pre-test and post-tests using the EVE instrument.

2. To produce measurable change in the accuracy of vocational and occupational information bearing on sex stereotyping.

3. To produce a measurable difference in the vocational behavior of project-exposed students (vs. control group as registered in the numbers of students selecting non-traditional vocational courses.

4. To support the changing student's election of non-traditional courses and/or occupations through the provision of personal counselor orientation role model presentation, and by marshalling resources such as unbiased apptitude assessment, business and industry exposure, etc.

5. To demonstrate the feasibility of developing a program which can reach students at grade 6, as well as formally testing the effects of the program at grades 9 and 12.

6. To demonstrate the feasibility of using the combined professional and volunteer approach in a long term effort, with a dispersed population.

PROCEDURES

Project Staff

A screening committee composed of the Project Director (Director of the Women's Center), a high school counselor, a member of the Women's Center Steering Committee who is also a Marquette County Commissioner and a Skill Center staff member interviewed applicants for project staff positions of teacher/counselor. Several criteria for evaluating the applicants,all of whom met the minimum qualifications,were established:

-Staff being members should be effective role models themselves
-Should have some classroom experience
-Should be aware of societal attitudes about sex roles and be willing to counteract them
-Relate well to young people
-Should have knowledge of vocational education and occupations
-Should be willing to work as a team, including team teaching.

Although there were many good applicants the committee decided to recommend a man and a woman both of whom met the criteria. It was felt that a balanced team would provide an effective and balanced approach to mixed classes.

The first task of the staff was to identify those schools in which classes might be utilized as control and treatment groups. This was done with the aid of Thomas M. Pierson, Ed.D., Director of Career/ Vocational Education and Placement services of the Marquette-Alger Intermediate School District. Dr. Pierson wrote an introductory letter, enclosing a copy of the project abstract to each of the superintendents and principals whose schools would be involved. This was followed up by an interview by the project staff. As much as possible treatment and control groups were chosen to provide balanced pairs for both rural and urban settings.

Project staff explained the project objectives and methodology to the superintendents and principals and asked for their cooperation and aid in selecting the classes that might be used in the project. Once the classes were identified, staff members met with the classroom teachers, going over the project with them and setting up a schedule for testing and classroom visitations. All of the various school personnel, administrators, teachers and counselors willingly participated in REVERSE and a schedule was agreed upon. Teachers of treatment classes were asked to take an active role, which they did in varying degrees.

Student Subjects

The student subjects of the research were members of twelve regularly constituted classes of 5th, 9th and 12th graders in four elementary and seven high schools of Marquette and Alger Counties, Michigan. Initially, the plan was to work with 6th, 9th and 12th grades for the entire year, having tested both the control and experiemental groups in the fall and then post-testing them in the spring. Two changes in the plan were necessary. The middle-school (6th grade) curriculum is taught in an interdisciplinary teaching approach and it would have been impossible to segregate a small enough experimental group for project purposes. Therefore, it was the decision of the project team, working in conjunction with school administrators, to involve fifth graders from traditional elementary classrooms.

The second change came with 9th and 12th graders. The semester change in classes necessitated that, instead of working with four 9th and 12th grade classes for the entire year, we would work with eight different classes for one semester each. The control groups were changed accordingly and pre- and post-tests were given each semester at the 9th and 12th grade level, while fifth graders with whom we worked all year, were pre-tested in the fall, given a mid-treatment test in January and post-tested in the Spring.

Students participating in the project came from a wide variety of backgrounds, ranging from very rural isolated communities where farming is the main industry to a small city where professional and technical careers and service industries are dominant. Parental backgrounds differed widely, from parents who had less than a high school education to those who held doctorate degrees. The students were neither selected by the staff or teachers nor did they self-select. They were participants in the project by virtue of their being members of the class.

Students attitudes toward participating in the project were varied. Some were very pleased to be a part of the experiment, and the reasons given for these positive attitudes were:

-Excitement about being part of a research project
-A break in the routine of the regular class
-A class which had no homework
-They were not being graded
-The fact that a man and woman were team teaching

Other students reacted negatively toward the project, resented being participants, and gave these reasons:

-They did not like being "guinea pigs"
-Didn't want any of this "women's lib stuff"
-Resented outsiders coming in
-Took away from regular class time

None of the students in the selected classes refused to participate in the project, nor were there objections from the parents of the participants.

Experimental Settings

For the purposes of this field research, an urban school was defined as any school which draws 65 percent or more of its students from a city of 10,000 or more population. Schools which draw less than 65 percent of their students from such cities were considered rural.

Class sizes ranged from 13 to 33, with an average of 26.

The class unit was defined, for the purposes of the research, as a group of like-grade-level students who meet regularly for a non-elective course and who were not assigned to separate groups within that course on the basis of aptitude or ability testing, past academic performance, or expected post-secondary matriculation plans.

Four elementary schools and seven high schools in Marquette and Alger counties were chosen, as project sites. All of the schools at which the field testing took place are public schools. Because Marquette is the most urbanized area in the two counties, all of the urban classes selected, both as experimental and control groups, were in the Marquette School system. Marquette Senior High School accounts for four control classes. Enrollment at Marquette for grades 9-12 is 1944. The fifth grade experimental class was held at Parkview Elementary School, enrollment 286, while its control class was held at Sandy Knoll School, enrollment 278, both part of the Marquette School system.

The rural sites chosen were much more divergent. At the fifth (and sixth) grade level, the Big Bay School in Powell Township was selected. The school is the only one in the Powell Township School District and includes grades K-8. Upon completion of eighth grade, students are bused into Marquette for their high school years. There are a total of 88 students in the school and grades five and six are combined. The control group for the rural fifth grade was Arnold, a K-7 school in the Republic-Michigamme School District. It too, was a small school with an enrollment of 60 students and a combined fifth and sixth grade.

At the ninth grade level, Westwood High School was chosen for a treatment class for the first semester and Mather High School in Munising for the control group. Westwood High School is a part of the NICE Community School District. It has a student enrollment of 547 and serves as a central high school (9-12) for many small surrounding towns. Mather High School includes grades 7-12 and is the only high school in the Munising (Alger County) school district, which has three elementary schools. Student enrollment is 775. Gwinn High School was chosen as the ninth grade rural experimental site for the second semester. It is the high school for the Gwinn Area Community Schools which also includes a middle school and four elementary schools. Student enrollment is 945. The Republic-Michigamme High School was selected for the ninth

grade control group for the second semester. The enrollment for this rural school is 151.

Trenary School is the only school in the Mathias Township School District. It serves grades K-12 and has a total enrollment of 159. High school students (grades 9-12) number 51. It was the site of the twelfth grade rural experimental class. The control group for this group was a twelfth grade class at Eben School. Eben is the only school for the consolidated Rock River-Limestone School District, has a total enrollment of 455 and a high school enrollment of 231.

In the second semester a 12th grade class at Westwood High School was used for treatment with its control being a similar class at Republic Michigamme.

The Design

The distribution by grade level, rural or urban setting, duration and control treatment group was as shown in Table 2.

It is based upon a microanalytic, longitudinal net change comparison between member groups of the pairs of treatment and control groups. Data was collected on the following independent variables:

-Sex
-Grade level
-Urban or rural
-Treatment or control
-Labor force experience of parents
-Parents educational index

The labor force experience of parents required written answers on the part of the students and it became difficult to categorize the answers. Further, many students, especially at the fifth grade level were uncertain as to their parents educational background. For these reasons, although we analyzed this data, we decided to delete them from our results.

The Test Instrument

An attitudinal and informational questionnaire dealing with sex stereotyped attitudes, knowledge of the labor market, and post high school plans was administered to twelve groups in October, 1977. The same instrument was used as a post-test for grades nine and twelve and as a mid-treatment test for the fifth grades in January, 1978. The instrument was used again for second semester ninth and twelfth grades as a pre-test in February, 1978 and as a post-test for the fifth grades and second semester ninth and twelfth grades in May, 1978.

The instrument used was an adaptation of that developed by the University of Houston Equal Vocational Education (EVE) project. (See Appendix A for facsimile of instrument.)

TABLE 2
TREATMENT AND CONTROL GROUPS

GRADE	LOCATION	DURATION	TREATMENT	CONTROL
5	(Urban) Parkview Marquette (G.S.-C)	Year	X	
5	(Urban) Sandy Knoll Marquette (G.S.-D)	Year		X
5&6	(Rural) Big Bay (G.S.-A)	Year	X	
5&6	(Rural) Arnold (G.S.-B)	Year		X
9	(Urban) Marquette Senior High (H.S.-E)	First Semester	X	
9	(Urban) Marquette Senior High(H.S.-E)	First Semester		X
9	(Rural) Westwood (H.S.-F)	First Semester	X	
9	(Rural) Mather High Munising (H.S.-G)	First Semester		X
9	(Urban) Marquette Senior High (H.S.-E)	Second Semester	X	
9	(Urban) Marquette Senior High (H.S.-E)	Second Semester		X
9	(Rural) Gwinn (H.S.-J)	Second Semester	X	
9	(Rural) Republic-Michigamme (H.S.-K)	Second Semester		X
12	(Urban) Marquette Senior High (H.S.-E)	First Semester	X	
12	(Urban) Marquette Senior High (H.S.-E)	First Semester		X
12	(Rural) Trenary (H.S.-H)	First Semester	X	

Table 2 (continued)

GRADE	LOCATION	DURATION	TREATMENT	CONTROL
12	(Rural) Eben (H.S.-I)	First Semester		X
12	(Urban) Marquette High (H.S.-E)	Second Semester	X	
12	(Urban) Marquette High (H.S.-E)	Second Semester		X
12	(Rural) Westwood (H.S.-F)	Second Semester	X	
12	(Rural) Republic-Michigamme (H.S.-K)	Second Semester		X

The instrument was pre-tested by administering it to a group of incoming freshmen university students and a fifth grade class. The object was to ascertain the length of time it took and to determine its clarity and comprehensibility for two divergent grade levels.

The research is a 2 X 2 X 2 X 3 factorially designed field experiment. (See table below.)

TABLE 3
RESEARCH DESIGN

CONDITION	LOCATION	SEX	GRADE LEVEL
Experimental	Rural	Male	Fifth
Control	Urban	Female	Ninth
			Twelfth

Administering the Test

In October, 1977, the teacher/counselors of the REVERSE staff met with each of the selected classes, introduced themselves, but did not describe the project or the program objectives. The staff explained that the questionnaire was a survey, not a test and directed students to answer the questions on the sheet by checking the box which most closely approximated their feelings on Part I and II and by either checking the box where indicated or supplying written answers as requested in Part III. Each questionnaire was then given an identification number indicating the grade level, condition (control or experimental), whether rural or urban and gender of student. The test answers were then transferred to computer cards, which were also punched with the identification number, and thus, made ready for the computer.

The same process was repeated for the post-test for first semester classes of grades 9 and 12 for the mid-treatment of the fifth grades and for the pre- and post-tests of second semester ninth and twelfth grades.

Curriculum Development

For the readers convenience, project objectives have been reported in an earlier part of this report. The curriculum was originally organized during the formulation of the proposal and specific curriculum objectives one through six. Bibliographies and information from such courses as Born Free, Minnesota; New Pioneer Project, North Carolina; Project Eve, Texas; Marquette Alger Intermediate School District; Michigan Career Education; and the Women's Center, Northern Michigan University were searched and chosen in a four step procedure:

1. Overall organizational layout was established to coincide with the objectives of the proposal.

2. Design and format of subject content was established.

3. Division of subject content was established.

4. Final selection of subject material was made on the basis of contribution to continuity, process and time requirements.

It was decided to divide the materials into three parts to be presented: (1) historical perspectives (what is the problem?), (2) self-concept and (3) vocational educational information.

The rationale for the problem statement and the implications of lack of career information were presented originally in the proposal and are discussed in the Background Section of this report. The necessity for inclusion of curriculum units on the subject of self-concept is apparent if one assumes that peer and parent pressure are important determinants of, or contributors to behavior. For self-concept develops through experiences of criticism and approval; success and failure. It develops through the perception of the world.

> The concept of self has two facts: it refers to a person's feelings about himself on the one hand and on the other, to how his self-estimate relates to estimates of him by significant others in his social context. The estimates involve dimensions that the current society considers fundamental to a personality. The dimensions are further organized into functional sub-groupings, which are usually termed roles. Being "a male" or "a female" is one such fundamental role. Roles provide the significant connections between self and society: through participation in the established roles of society the individual is not only linked meaningfully to the social order, but in turn, is defined by it.13

Information concerning vocational educational and career options is the third portion of the lesson plans. A study done by "Psychology Today" concerning work satisfaction revealed that the majority of the survey participants appeared to be having second thoughts about their occupations. It suggested that the reason that people decide to change careers is that their first choice had been poorly thought through. Almost 40% of the reader sample said that they had happened upon their occupation by chance, without much deliberation.[14] Even people who are highly experienced at decision-making can benefit from some guidance when they are choosing a career. Information and a rational decision-making process are important ingredients for career success. Therefore, vocational and career information were vital parts of this project.

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[13] Developmental Psychology Today, CRM Books, Del Mar, CA, p. 420.

[14] Renwick, Patricia A., and Lawler, Edward E. "What You Really Want From Your Job", Psychology Today, (May, 1978), p. 57.

LESSON PLAN-GRADES FIVE AND SIX
FIRST SEMESTER

Statement of Need	Self Concept	Vocational-Educational Information
Pre-Test Post-Test Measure for research	Success and Strengths: Students will identify their strengths and abilities. Success Analysis worksheet.	Success and Careers: Students will distinguish the importance of personal success in relationship to career choices. Success and Career worksheets.
Word Usage: Students will increase their awareness of the words: label, stereotyping, and role. Students will complete worksheet and build a collage.	Values and Decision Making: Students will be exposed to decision making process within a group setting and on an individual basis. NASA worksheet.	Career Information: Students will compare career vocational choices. Career cards and career index information packets.
Prejudice: Students will increase their awareness of prejudice and the consequences. Film: Prejudice: Causes, Consequences, Cures. Prejudice awareness worksheet.	Men Are/Women Are Students will express and experience feelings concerning male and female characteristics. Role Reversal Fantasy.	Role Model Presentation: Students will be exposed to Role Model team members in non-traditional careers. Two presentations.
Time: Students will become aware of time and recognize the value system of society. Film: Future Shock	Values and Self Defeating Behavior: Students will recognize the value system of others and recognize self defeating behavior. Film: Pack Your Own Chute.	My Career: Students will identify their career choices and create representative symbols.
		Values & Career Choices: Students will explore value system as they relate to career goals. Worksheet: Considering Success & Careers

LESSON PLAN-GRADES FIVE AND SIX
SECOND SEMESTER

Statement of Need	Self Concept	Vocational-Educational Information
Prejudice: Students will identify prejudice statements and explore the consequences. Worksheet: Prejudice	Values: Students will explore their value system, identify its origin and recognize the results. Worksheet: Twenty Things. Voting Your Values.	Career Awareness: Students will become aware of diversities and similarities of careers as they relate to their own world. Worksheets: Jobs I Know. Job Differences.
Historical Perspective/Sex Role Development Students will acquire an accurate perspective of the socialization process and alternatives to sex role stereotyping. Film: Sex Role Development.	Sex Role Stereotyping: Students will be exposed to sexism in text books as it relates to established self concept. Film: Images of Males and Females.	Career Information: Students will compare and vocational choices as compared to first semester choices. Guess that Job exercise.
Media Week: Students will become familiar with media's influence concerning sex role stereotyping. Filmstrips: Tear Open the Boxes, Cinderella is Dead. Materials include toys, books, album covers and advertising.		Vocational-Educational Information: Students will be exposed to non-traditional career information. Film: Anything You Want To Be.
Post-Test Measure for research		Role Model Presentation: Students will be exposed to Role Model teams in non-traditional careers. (Two Presentations)
		Vocational-Educational Information: Students will be exposed to vocational educational information and union apprenticeships. Film: Apprenticeship.

LESSON PLAN-HIGH SCHOOL-FIRST SEMESTER

Statement of Need	Self Concept	Vocational-Educational Information
Pre-Test Measure for research	Success and strengths: Students will identify their strengths and abilities. Success Analysis worksheet.	Role Model Presentation Students will be exposed to role models in non-traditional careers.
Word Usage: Students will increase their awareness of the words: label, stereotyping, and role. Worksheet and Discussion	Values and Career Choices. Students will explore their value system and relate this to career goals. Considering Success worksheet. Considering Careers worksheet.	Career Information: Students will explore career and vocational options.
Prejudice: Students will increase their awareness of prejudice and the consequences. Film: Prejudice: Causes, Consequences, Cure. Prejudice awareness worksheet.	Personal Values: Students will recognize their personal values. Twenty Things worksheet. Discussion	Role Model Presentation Students will be exposed to role models in non-traditional careers
Time: Students will become aware of time factor and recognize the value system of society. Film: Future Shock	Men Are/Women Are: Students will express and experience the feelings concerning male and female characteristics Role Reversal Fantasy.	
Post-Test Measure for research	Values Systems/Self Defeating Behavior Students will recognize the value system of others and also recognize self-defeating behavior. Film: Pack Your Own Chute.	

LESSON PLAN-HIGH SCHOOL-SECOND SEMESTER

Statement of Need	Self Concept	Vocational-Educational Information
Pre-Test/Post Test Measure for research	Values: Students will explore their value system, identify its origin, and recognize the results in an individual and group setting. Worksheet: Twenty Things I Like To Do. Voting Your Values.	Vocational Information: Students will be exposed to vocational information and non-traditional careers. Film: Anything You Want To Be.
Introduction of Project: Students will be introduced to the project, the objectives and goals. Lesson plans will be explored and a question and answer period will be included.	Decision Making: Students will acquire problem solving skills. Worksheet: Sub-Arctic Survival.	Role Model Presentation: Students will be exposed to Role Model teams in non-traditional careers. (Two Presentations)
Time: Students will become aware of time factor and recognize the value system of society, as it relates to the individual. Film: Future Shock.	Sex Role Stereotyping: Students will be exposed to sexist text books and the messages that establish stereotyping as it relates to self concept. Film: Images: Males and Females.	Occupational Information: Students will be exposed to vocational and occupational information. Materials include required skills, training areas, wages, job projections and related fields.
Historical Outline-Sex Role Development Students will acquire an accurate perspective of the socialization process and alternatives to sex role stereotyping. Film: Sex Role Development.		Vocational-Educational Information: Sources include: union apprenticeship rep. vocational counselors, union business agents. Film: Apprenticeship.
Media Week: Students will be exposed to media's influence concerning sex role, stereotyping. Filmstrip: Tear Open the Boxes, Cinderella is Dead. Toys, books, album covers and advertising.		

Summary of Teacher Evaluations

Teachers of classes which were the subjects of the direct intervention by REVERSE project staff were asked to evaluate the results of the project by responding to a questionnaire (see Appendix D).

The majority of the teachers responding felt that the project had met its goals, although some were not clear as to what the goals were. Most felt that students had gained from the project by being exposed to new or different ideas about careers and job possibilities. At least one teacher felt support was given to students who were considering entering non-traditional fields and another stated that students gained by learning to accept outsiders into the classroom.

Responding to a question regarding the effectiveness of the materials, teaching approach and staff performance, teachers were generally enthusiastic about the materials used and especially liked the choice of films as a complement to the lessons. One teacher commented that he/she had already used many of the same materials. Five of the six teachers responding felt the teaching approach was good and one commented on the sharing by the male-female team. One teacher, however, felt that the team failed to establish a personal relationship with the students in his/her class. All agreed that the staff performance was good to excellent and felt they were well organized and provided good models for students.

Of the activities and materials used, a number of the teachers felt that the role model teams were most effective. Others felt that activities in which the students were involved provided the best experience, while some commented on the use of the films and filmstrips. A further question as to what needed improvement was met by a varied response. "Better discussion of the films" was one answer, while another felt that more paper work activities would be an improvement. One teacher felt that the first semester needed more direction.

It was generally agreed by the teachers that the time allotted was not sufficient. Several suggested teaching it as a block unit for consecutive weeks, but at least two of the teachers felt this would interfere with their own classroom teaching.

Although not all of the teachers felt they were included as an integral part of the project, a number of them said that they had contributed and had been as included as they wished to be. All of the teachers who responded said that they had gained from the project, one commented that he/she realized his/her own biases, while one said he/she had come to realize the lack of understanding of sex role stereotypes on the part of his/her students. All of the teachers said that they had discussed the projects with at least a few other teachers.

Most important for the purposes and goals of the REVERSE project were the responses received to the question, "Do you feel you will incorporate some of the ideas and attitudes of the project into your teaching in the future?" All of the respondents answered in the affirmative, mentioning such things as re-evaluating text books, including a unit on women in

politics in a political science course and inviting people in various occupations to visit their classrooms.

Most of the teachers stated they would like to have their classes participate again if the project were to be repeated. One teacher, however, responded in the negative, stating he/she felt it disrupted the rest of his/her classes.

On the whole, the teachers of the experimental classes were cooperative and supportive, offering some good suggestions and feedback. Most encouraging was the fact that all of them stated their willingness and commitment to incorporating some of the ideas, attitudes and activities of the REVERSE project into their own lesson plans.

Summary of Student Evaluations

Students who were in the classrooms where the REVERSE project staff did the direct intervention were asked to evaluate the work that had been done by responding to a questionnaire (see Appendix 4).

The first responses which were asked for were to list the 'likes' of the program. The responses from grades five delt with specific areas. They listed work exercises that had been presented in their classrooms. Skits, "Guess that Career", and making symbols that represented their individual career choices were mentioned repeatedly in this section. Slides of the students in role playing different careers were also highly rated. Role Model teams presentations were mentioned repeatedly or, as the students phrased it, "when you brought people in to guess their career", "I liked the program, it was fun", and "when I tried not to be a male chauvinist pig", sums up this information.

The second section was a list of dislikes. The strongly predominent response from this age group was, "surveys", "I didn't like them stupid tests", and "doing the surveys was boring". Another observation was, "I didn't like it when you picked the girls", and "when we had to hold on to the scarf and talk", (this method was tried at the beginning of the school year. In the small group discussions they were reminded that only the person holding the scarf was the speaker).

The third section included comments such as, "I like you people a lot, because you are very friendly", "I think it is a good class for kids", "it was pretty good", and "I don't like general comments". These types of responses were general examples from the students in grade five.

Students in grades nine and twelve commented that a new awareness of the meaning of sex role stereotyping, prejudice and discrimination had been established within their own frame of reference after having been exposed to the REVERSE project. A majority of students gave reference to this fact in statements such as, "you brought out some things about discriminating that I didn't know about" and "we all have prejudices and I think that realizing this will help to either eliminate them or at least control them".

There was further indication that the materials that were presented regarding vocational education, apprenticeship training programs and career choices were new and helpful information. This was also an area that was commented upon by the students. "I liked the exposure to different jobs and careers". There were responses to the variety of career choices that were made known to the students, in comments such as: "I liked the exposure to the different jobs and careers."

There was a very positive response to the Role Model team presentations. The variety of careers hold by these persons plus the value of their presentations were noted by a large number of students on the student

evaluations. "People are doing what they really want to do and do best", is a summation of the general flow. This area received the largest amount of positive comments. "I can start my career in high school" and "expand your organization and show more people what's happening", are two more comments which were made by students. In regard to the non-traditional field, the students noted, "it taught also that boys could do just as well in girls' jobs" and "it showed that you don't have to be a girl to do a girl's job".

The second section was a listing of dislikes. Overall, students in grades nine and twelve indicated that the project was one sided, being described as "women's lib". "Your course talks too much about women". It was also noted that the male point of view should have received documentation. There was a dislike for the "Who am I" type of exercise and also a dislike for being "guinea pigs".

The general comments indicated that "this program should be taken into junior high" and "younger students could benefit from this kind of project". There were several comments in regard to the male/female team approach as being positive. "I think differently now because I have some idea of what it's all about", was a message that was repeated. An awareness of the "outer world", an awareness of restrictive stereotypes and an awareness of what's going on out there, sums up the general comments.

Conclusions of Process Report

Conclusions of this portion of the report are based on staff observations and the students' and teachers' evaluations and differ to some degree from those offered in the Research Analysis portion of this report.

On the whole, staff teacher/counselors observed a higher degree of student response to intervention treatment at the ninth grade level than in either the twelfth or the fifth grades. This was true for both the urban and rural schools. The staff also observed that in the ninth grade, the female students tended to be more responsive verbally than did the male students.

At the twelfth grade level, male students dominated the discussion in both the rural and urban settings. Much of this twelfth grade male response was negative in attitude, even to the point of being openly hostile to the objectives of the REVERSE Project.

At the fifth grade level, students were generally cooperative and interested, but the males, particularly, showed a greater tendency to be influenced by athletic heros than they did the job market. Many of them are in junior athletic programs and reported their career goals as that of being professional hockey players.

At all grade levels the amount of response and the openness of the students was directly related to the attitude of the classroom teachers. In those classes where the teachers were supportive of project goals and taking an active role in the intervention strategies, students showed a greater willingness to participate and to discuss than did the students in the classrooms where the teachers were less enthusiastic.

The project counselor/teachers reported also that when classes were broken up into smaller groups for discussion, there was a good deal more interaction than there was when they tried to generate discussion with the whole class.

Role Model team visitations also generated a great deal of class participation at every age level. Most of the students had not been exposed to persons working in non-traditional sex stereotyped jobs and the experience of meeting, listening to and asking questions of these men and women was a novelty to most. The role model teams, it would appear, were an effective means of introducing young people to a wider variety of vocational choices.

For many of the students, the career and vocational information presented to them was entirely new. They had not previously been exposed to information about training, the aptitudes needed or job opportunities. Nor, so it would seem, had most of them entertained the idea that work can be enjoyable and that they can be what they want to be.

Students also did not have a very good idea of what vocational education is. Their image of vocational education was that of being for the "dumb kids". Even many of the students whose parents were in blue collar jobs seemed to look down on blue collar work.

Men and women students at all three grade levels seemed more ready to accept women in jobs traditionally thought of as male than they did to accept men in traditionally female jobs. This would suggest that the women's movement, either directly or indirectly, has had some impact on students' thinking about women's changing roles, but has not impacted their thinking about the changing roles of men to the same degree.

One final observation should be made which has important implications for the long-range outcome of the project goals. All of the teachers, according to their own evaluations and according to their conversations with the project staff, became more aware of the problems of sex role stereotyping. Almost all of them said they would incorporate some of the materials and attitudes of the REVERSE Project into their own classroom teaching. It may well be that this consciousness raising for the teachers involved will be the most valuable and lasting effect of Project REVERSE.

PART II

RESEARCH ANALYSIS REPORT

PART II - RESEARCH ANALYSIS

The Project REVERSE team conducted an extensive field research project. A quasi-experimental (Campbell and Stanley, 1966) 2 X 2 X 2 X 3 factorially designed project was carried out in 12 different intact school classrooms. This portion of the final report will focus upon the research model; the methodology used; including sampling, instrumentation, and statistical procedures; and, will identify a number of hypotheses that the Project REVERSE team made. It will also identify the testing of those hypotheses, focus upon the results, discuss those results, and finally offer some recommendations based upon the findings of this extensive field research project.

METHODOLOGY

Sampling

Five hundred and twenty-two students participating in this Project REVERSE were enrolled in 20 regularly constituted classes of fifth*, ninth grade, and twelfth grade students in elementary and high schools in eight different school systems from the central region of the Upper Peninsula of Michigan during the academic year 1977-78. The students were distributed by grade level, urban and rural setting, by treatment condition, and by number of semesters of treatment condition. (See table below.)

TABLE 4

Distribution by grade level, residential setting, treatment condition, and duration of treatment condition

Grade & Condition	Treatment	Control Group	Number of Semesters of Intervention
12 - urban	2 classes	2 classes	one
12 - rural	2 classes	2 classes	one
9 - urban	2 classes	2 classes	one
9 - rural	2 classes	2 classes	one
5 - urban	1 class	1 class	two
5 - rural	1 class	1 class	two

*One of the fifth grades was actually a combined fifth and sixth grade class in a rural setting.

Operationally, the Project REVERSE team defined an urban school as any school which drew 65% or more of its students from a city of 10,000 or more population. Schools that drew less than 65% of their students from cities of that size were considered rural. Classes of participating students ranged in size from 12-33 with an average of about 26. The class unit was defined, for the purposes of this study, as a group of like grade level students who met regularly for a non-elective course. Furthermore, students were not assigned to or permitted to elect a particular group within that course on the basis of ability, aptitude, past academic performance, or expected postsecondary matriculation plans. For the ninth and twelfth grade classes, both experimental and control groups came from courses that had the same subject, namely a health, English, social sciences, or civics course. The intent here was to make certain that the students who were enrolled in those intact classes were similarily constituted with regard to aptitude, vocational preference, etc.

Once the schools were selected, Project REVERSE team met with the principals from those schools and determined in which classrooms the treatment would take place. The principals of these schools (see Table 2) tapped teachers that were amenable to having their classes participate in a semester-long project. The Project REVERSE team and the principals of the schools then determined which of the two classes would become the experimental group and which of the two classes would become the control group. Finally, the students' motivation for participating in this research was not specified. The content of the intervention was only minimally incorporated into the material that was being presented in the class. To the extent that the treatments were obtrusive and interferred with ongoing activities of the academic course, the motivation of participants was conceivably atypical, at least different than motivation for their regular classes.

Instrumentation

The Project REVERSE team used a somewhat modified 83 item survey questionnaire developed by the University of Houston, Equal Vocational Education (EVE) Project (see Appendix A for a facsimile of the Project REVERSE questionnaire). This modified questionnaire has three parts. Part one contains 35 Likert-type items designed to assess self-reported attitudes concerning sex role stereotypes. This portion of the questionnaire was used to assess level and type of sex role stereotyping in line with the first of the six major objectives of Project REVERSE. That first objective was to "produce measurable change in the level and type of sex role stereotyping and sex bias attitudes expressed by students over a semester period, as registered in responses to pre-test and post-test using the modified EVE survey questionnaire.

Part two contained 20 true-false items which measured the relative accuracy of vocational and occupational information bearing on sex role stereotypes. It was designed to measure any changes in that accuracy. This portion of the questionnaire was intended to meet the second major

objective of Project REVERSE, "To produce measurable change in the accuracy of vocational and occupational information bearing on sex role stereotyping".

Part three of the questionnaire contained 28 items dealing with a variety of topics including some demographic information and some questions about vocational plans and intentions for vocational training.

This questionnaire was administered by Project REVERSE team members to all participants. The ninth and twelfth grade students completed the questionnaire twice: once at the beginning of the semester of treatment or control period, and 12 weeks later at the end of the semester of treatment or control condition. The fifth grade students completed the questionnaire three times. As their treatment or control conditions ran for a period of 24 weeks, they completed the questionnaire at the beginning of the first semester, at the end of the first semester, called a mid-treatment measure, and at the end of the spring semester.

Prior to administering the survey to the research participants, the Project REVERSE team piloted the instrument. There were two questions to be answered. How long does it take young adults to complete the 81 item questionnaire? Can the instrument as is, be appropriately used with fifth graders? In answer to the first question, the team administered it to beginning first semester university freshmen students. It took them a maximum of 20 minutes to complete the questionnaire. Many completed it in less than 15 minutes. It was determined that the questionnaire could be administered easily within a 30 minute period for ninth and twelfth graders. Secondly, it was administered to a fifth grade class of students. It was determined that with elaborate instructions and some questionnaire administrator explanation of a few terms, fifth graders could comprehend fairly well the items of the questions on the questionnaire and appropriately self report. When administered to the fifth graders the administrators very deliberately presented the questionnaire so that the fifth graders were comprehending and correctly responding to the items. Resultantly, it took 40 minutes to administer it to the fifth graders. Data collection was carried out by the two primary treatment manipulation members of Project REVERSE team; they collected all of the data.

Individual student responses to the questionnaire were placed onto computer cards with mark sensitive pencils. Each participant was given a 5-digit number which identified which levels of the independent variable each participant was in. Once data were collected and placed onto computer cards, participant anonymity was assured. A university student in a work-study program transcribed all data onto computer cards.

Data Analysis

A research consultant, with the help of an undergraduate student, used commercially packaged computer statistical programs, several locally prepared computer programs, plus some hand computation for data analysis. One of the locally prepared programs was designed to handle the reversing of polarity for some of the attitudinal items. The first data

analysis included a descriptive statistical analysis of the responses, first of individual students responding, then of group means and standard deviations for the pool of attitudinal items and the pool of informational questions for both pre-test responses and post-test responses. Next, analyses of variance were computed in order to determine main effects and interactive effects. Subsequently, both planned and post hoc comparisons were computed in order to determine more specifically, the nature of the effects. T-test analyses were made to identify the net pre-test to post-test change between the six pairs of treatment and control groups. The level of significance used in all cases above was the .05 or more stringent level of confidence.

Hypotheses

The Project REVERSE team hypothesized that the experimental intervention incorporating the role models and the 10-12 weeks of intervention would facilitate a change in the level and type of self-reported sex role stereotyping attitudes. The Project REVERSE team also hypothesized that the treatment would produce measurable changes in the accuracy of vocational and occupational information relative to sex role stereotyping as measured on a 20 item test. Both of those major hypotheses were tested. Project REVERSE team also hypothesized that the experimental treatment would influence the amount of career choice shift for students. Namely, those students participating in the experimental treatments would increasingly shift to consider career choices which were not heavily sex role stereotyped to a greater extent than those students in the control conditions.

DATA ANALYSIS

Sequence of Analyses Using Locally Prepared Programs and SPSS Computer Programs

Data (see Appendix E) from the 522 students in this study were placed onto computer cards. The first 35 items of that instrument were Likert-type attitudinal items. Wherever appropriate, polarity of about one-half of the items was reversed. Next, for each student, responses to the 35 items were summed and a mean was calculated resulting in one mean pre-treatment score and one mean post-treatment score per individual for these 35 items. Scores could range from 1 to 5. The second portion of the questionnaire included 20 true-false informational items. Scores could range from 0 to 20. The number of correct responses became the measure of the amount of accurate information the students had relative to sex role stereotyping in vocational choice.

The remaining items on this 81 item questionnaire asked for some demographic information, career choices, some career choice shifts, etc. The first step in data summarizing included scoring, summing, and recording the attitudinal scores and the information scores. As initially proposed and hypothesized, the focus of Project REVERSE was upon studying shifts in performances that were influenced by the experimentally manipulated

treatment variable. Only students for whom there was complete information on both the pre-treatment and post-treatment were included in the descriptive analyses. There was complete data gathered from 390 students. Several analyses of variance were run with these 390 subjects. It became apparent that the groups of students were statistically significantly different at the .01 level in the premeasure and they were also statistically significantly different at the .01 level in the postmeasure. An SPSS program was used for those analyses. When it became apparent that there were statistically significant differences at the outset of the research project another type of analysis became appropriate and the analysis which this discussion is based upon is a three factorial repeated measures design (Weiner, 1962, p. 337). Several additional decisions became necessary and were made. This particular research design analysis required an equal number of subjects in each cell. As there were twice as many participants in the ninth and twelfth grades as there were in the fifth grade groups, it became necessary to do the analyses of variance within grade rather than across grade. Furthermore, huge discrepancies in the number of males and females in any particular cell occurred, ranging from five to seventeen across cells. Were no collapse of data on the gender dimension made, the analysis would have had to be reduced to a pool of five participants per cell. Such an extensive reduction in number(n) of students per cell was deemed inappropriate statistically. Therefore, in order to avoid such a heavy reduction of n for the analyses, data were collapsed across gender. In order to have an equal number of participant responses in each cell, a number of students' responses were randomly eliminated. This random selection was accomplished with the use of a calculator program to generate a randomly selected sample, in this case to randomly eliminate data for a number of students. That resulted in an n of 13 per cell in the 5th grade, and n of 30 per cell in the 9th grade, and an n of 32 per cell for the 12th grade condition.

Analyses of Attitudes

The 2 X 2 X 2 analysis of variance for the 12th grade students' sex role stereotyped attitudes was made. There were no statistically significant differences in attitudes; main effect differences, or interactive effect differences at the .05 level of confidence (see Table 5). Additionally, as can be seen in Figure 1, the mean scores across groups and measurements varied very little.

TABLE 5

Analysis of Variance for Self-Reported Sex Role Stereotype Attitudes of Twelfth Grade Students

Source of Variation	SS	df	MS	F
Between subjects	47.076	127		
A (treatments)	.02	1	.02	
B (urban-rural)	.39	1	.39	1.045
AB	.403	1	.403	1.080
Subject within groups Error (between)	46.263	124	.373	
Within subjects	7.942	128		
C (measures)	.163	1	.163	2.725
AC	.156	1	.156	2.608
BC	.002	1	.002	
ABC	.201	1	.201	3.361
C X subject within groups Error (within)	7.420	124	.059	

*Statistically significant at the .05 level of confidence

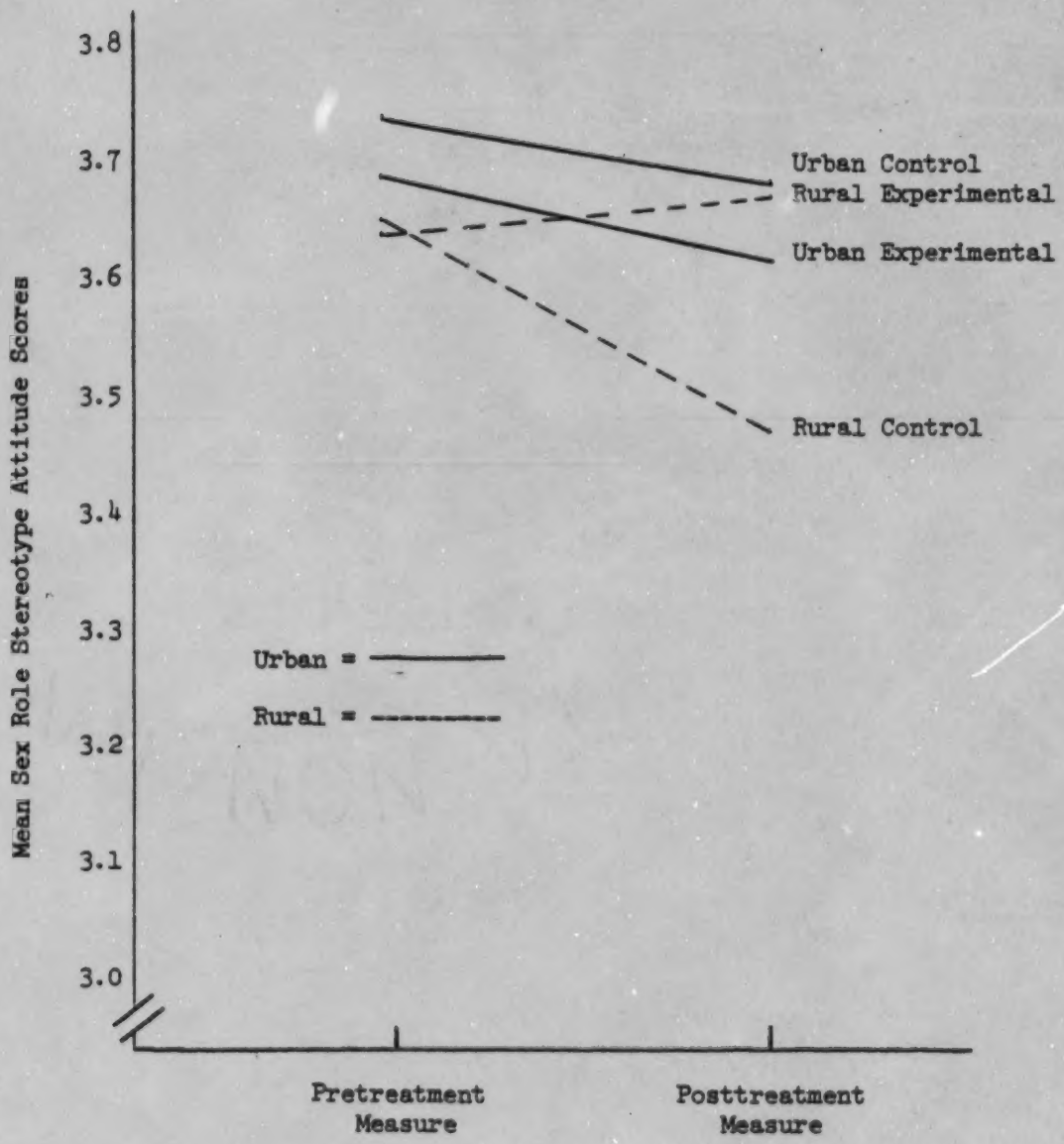

FIGURE 1. Pretreatment and posttreatment mean sex role stereotype attitude scores for treatment (experimental or control) and urban and rural twelfth grade students.

The 2 X 2 X 2 analysis of variance for the 9th grade students' sex role stereotyped attitudes produced a complex pattern (see Table 6) of significant differences. While the main effect of treatment was not statistically significant at the .05 level, the main effect or urban-rural dimension was statistically significant with F = 30.25 with 1 and 115 degrees of freedom which was statistically significant at the .001 level of confidence. Additionally, the repeated measures dimension produced an F = 10.00 with 1 and 115 degrees of freedom which was statistically significant at the .01 level of confidence. For the two-way interactions, the treatements X urban-rural dimension was statistically significant and produced an F = 10.50 with 1 and 115 degrees of freedom which was significant at the .01 level. Further comparisons using the Newman-Keuls technique were made (Weiner, 1962, p. 309) in order to locate those differences. Four of the six possible conparisons of pairs of means, were statistically significantly different at the .05 level of confidence (see Appendix F). The urban control group had significantly higher sex role stereotyped attitude scores than the other three AB conditions. The rural control group, while having statistically significantly lower sex role stereotypic scores than the AB urban condition was not statistically significantly lower from the rural experimental group.

There was no significant treatment by repeated measures interaction. There was a statistically significant level of urban-rural dimension by measurement dimension: F = 15.71 with 1 and 115 degrees of freedom significant at the .001 level of confidence. Comparisons using the Newman Keuls procedure mentioned above were made in order to locate where those differences occurred. The urban control group had statistically significantly higher sex role stereotypic attitude scores than the other three BC conditions. Those differences are presented in tabular form (see Appendix G).

Finally, the analysis of variance produced an F = 57.14 for the three-way interaction with 1 and 115 degrees of freedom which was statistically significant at the .001 level of confidence. Further analysis of the significant differences within this ABC interaction are displayed in tabular form (see Appendix H). Of the 28 possible comparisons, 21 were statistically significant at the .05 level. Importantly, the analysis of these data for the ninth graders reflect that there is a significant three-way interaction influencing sex role stereotyping scores. Finally, the directions of those differences in attitudes for the ninth graders can be seen in Figure 2.

The students in the rural conditions initially had a significantly lower sex role stereotyping score than the urban participants. Additionally, there was a statistically significant difference between the urban experimental group and the urban control group on posttreatment. The control participants had posttreatment scores which were statistically significantly higher at the .05 level of confidence. They were more sex role stereotyped than in the premeasure, while the experimental group in the urban

condition maintained, although urban experimental premeasure to post-measure differences were not statistically significant at the .05 level. For the rural participants, the experimental group had a statistically significantly different higher sex role stereotyping score at the end of the 12 weeks of treatment than they did at the pretreatment measure. The rural control participants had posttreatment scores which were statistically significantly lower at the .05 level of confidence than the pretreatment measure.

The 2 X 2 X 2 X 3 analysis of variance repeated measures for the fifth grade produced several statistically significantly differences. As can be seen in Table 7, there was a significant treatment effect: $F = 5.69$ with 1 and 48 degrees of freedom which was statistically significant at the .05 level. The experimental condition group had higher sex role stereotypic attitude scores than the control group (see Figure 3). Additionally, there was a significant interactive effect between treatment and the urban-rural dimension: $F = 5.51$ (with 1 and 48 df) was statistically significant at the .05 level of confidence. In order to localize where statistically significant differences occurred, a Newman-Keuls procedure was used to test all pairs of means in the AB interaction (see Appendix I). The urban control group condition had a statistically significantly lower sex role stereotype attitude score mean than either the rural control group condition or the urban experimental group condition. Those differences can be seen in Figure 3.

Analyses of the Information Scores

Analyses of variance (Tables 8, 9, and 10) are presented for each grade on the information scores, the effect of the independent variables upon knowledge of content concerning sex-role stereotyping information. In no instance across all three grade levels was there a significant difference in amount of accurate information at the .05 level. Discussion of that will occur in another portion of this paper.

Career Shift Scores

One of the items on the last third of the questionnaire asked students what job they would like to have when they started to work. Shifts from pretreatment measure to posttreatment measure toward identification of a more non-traditionally sex role stereotyped career choice were tabulated. Out of the 390 students for whom there was complete pre-treatment and posttreatment measurements, 351 identified their career choices. Three Project REVERSE team members each independently determined when there were shifts from a traditionally sex role stereotyped career to a less sex role stereotyped career. Nineteen (a bit more than 05%) of the 351 students identified such a shift from pretreatment to post-treatment career choice. There were 172 students in the experimental treatment group and 179 in the control group. Fifteen of the 19 shifts occurred in the career choices of the experimental treatment group and only four from the control condition group. There was a statistically significant difference in the number of students who identified such a

TABLE 6

Analysis of Variance for Self-Reported
Sex Role Stereotype Attitudes of Ninth Grade Students

Source of Variation	SS	df	MS	F
Between subjects	6.48	119		
A (treatments)	.04	1	.04	1.0
B (urban-rural)	1.21	1	1.21	30.25***
AB	.42	1	.42	10.50**
Subject within groups Error (between)	4.81	115	.04	
Within subjects	1.39	120		
C (measures)	.07	1	.07	10.00**
AC	.00	1	.00	
BC	.11	1	.11	15.71***
ABC	.40	1	.41	57.14***
C X subject within groups Error (within)	.81	115	.007	

*Statistically significant at the .05 level of confidence

**Statistically significant at the .01 level of confidence

***Statistically significant at the .001 level of confidence

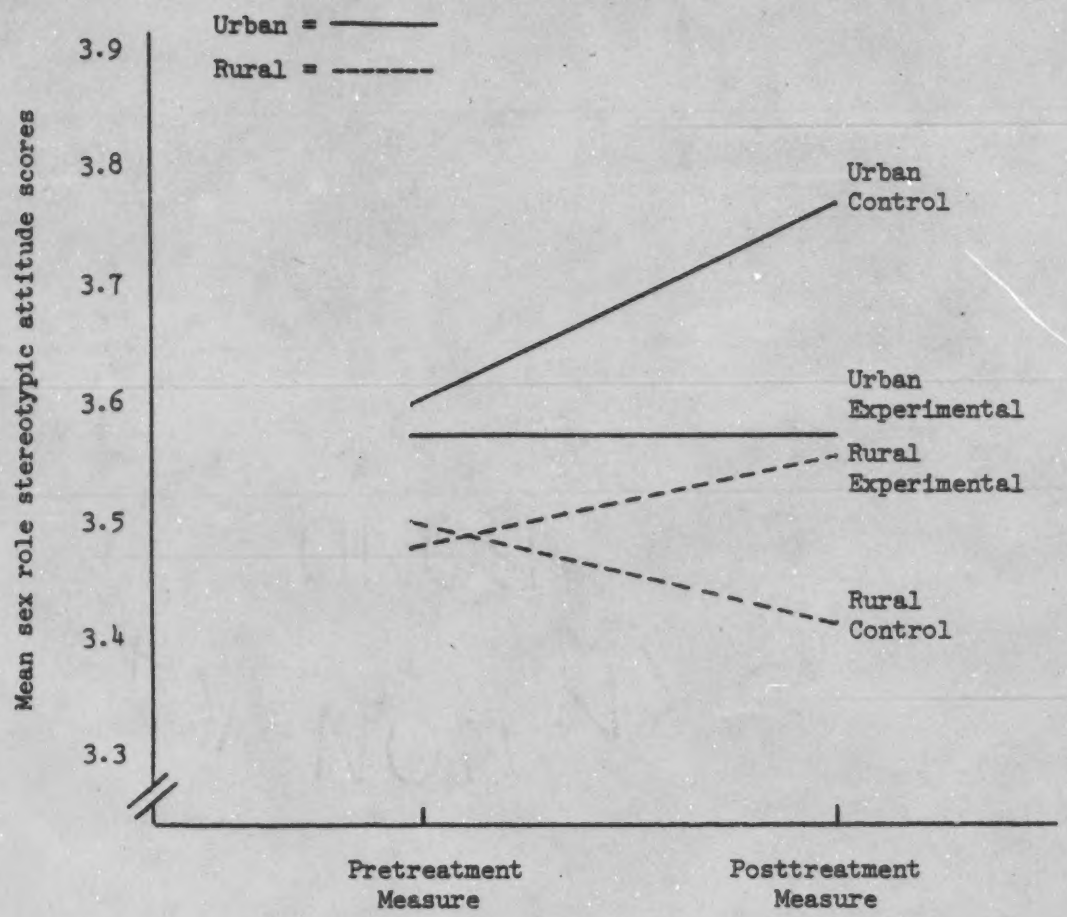

Figure 2. Pretreatment and posttreatment mean sex role stereotype attitude scores for treatment (experimental or control) and urban and rural ninth grade students.

TABLE 7

Analysis of Variance for Self-Reported
Sex Role Stereotype Attitudes of Fifth Grade Students

Source of Variation	SS	df	MS	F
Between subjects	23.40	51		
A (treatments)	2.22	1	2.22	5.09*
B (urban-rural)	.16	1	.16	
AB	2.15	1	2.15	5.51*
Subject within groups Error (between)	18.87	48	.39	
Within subjects	3.09	52		
C (measures)	.01	1	.01	
AC	.13	1	.13	3.22
BC	.13	1	.13	3.22
ABC	.00	1	.00	
C X subject within groups Error (within)	1.82	48	.04	

*Statistically significant at the .05 level of confidence

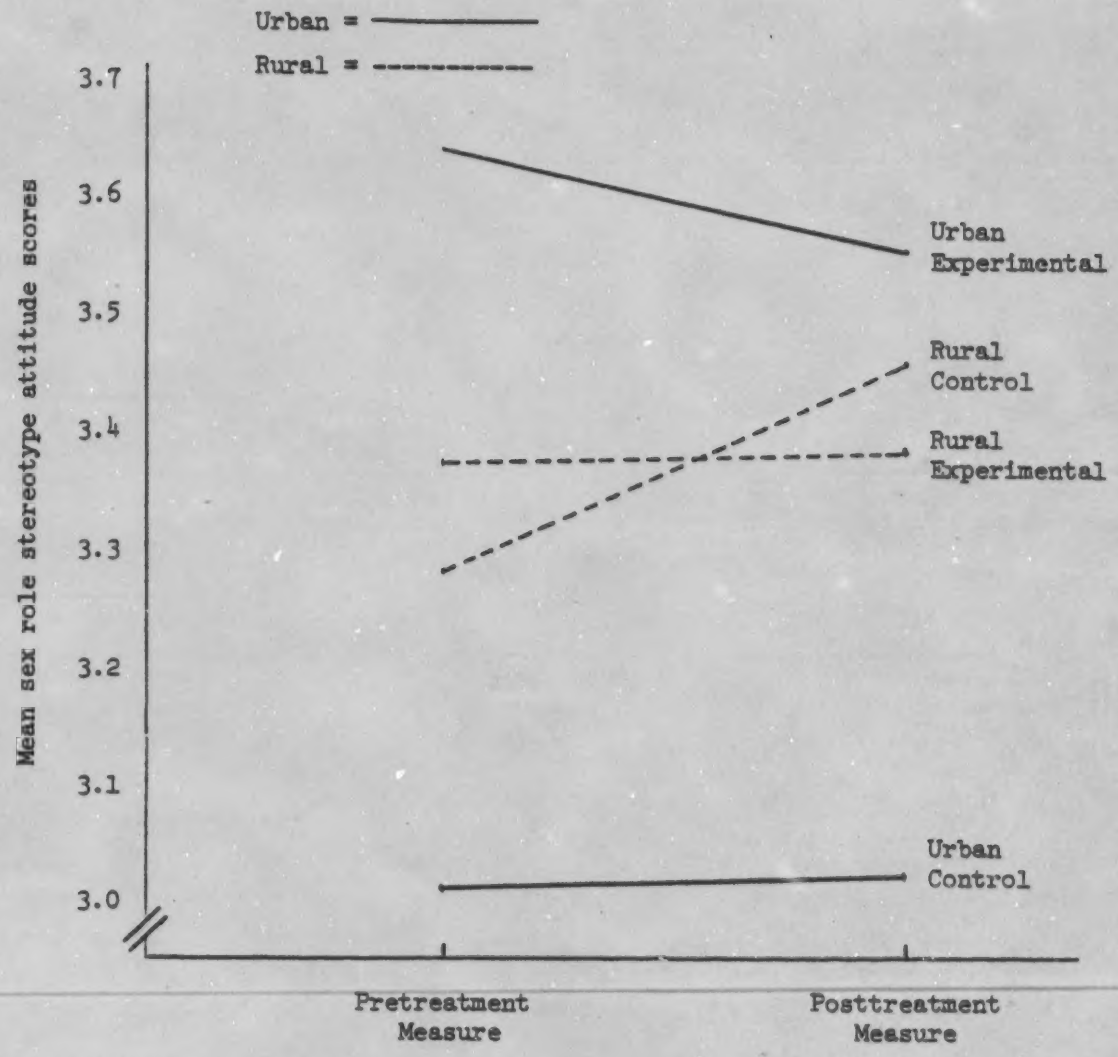

Figure 3. Pretreatment and posttreatment mean sex role stereotype attitude scores for treatment (experimental or control) and urban and rural fifth grade students.

TABLE 8

Analysis of Variance for Informational Accuracy Scores for Twelfth Grade Students

Source of Variation	SS	df	MS	F
Between subjects	1701.00	127		
A (treatments)	.25	1	.25	
B (urban-rural)	37.52	1	37.52	2.80
AB	1.26	1	1.26	
Subject within groups Error (between)	1661.97	124	13.40	
Within subjects	1018.00	128		
C (measures)	9.77	1	9.77	1.23
AC	9.76	1	9.76	1.22
BC	8.99	1	8.99	1.13
ABC	1.57	1	1.57	
C X subject within groups Error (within)	987.91	124	7.97	

TABLE 9

Analysis of Variance for Information

Accuracy Scores for Ninth Grade Students

Source of Variation	SS	df	MS	F
Between subjects	1512.18	119		
A (treatments)	35.27	1	35.27	2.75
B (urban-rural)	.07	1	.07	
AB	.02	1	.02	
Subject within groups Error (between)	1476.83	115	12.84	
Within subjects	699.00	120		
C (measures)	5.40	1	5.40	
AC	6.02	1	6.02	1.01
BC	.02	1	.02	
ABC	.07	1	.07	
C X subject within groups Error (within)	687.50	115	5.98	

TABLE 10

Analysis of Variance for Information

Accuracy Scores for Fifth Grade Students

Source of Variation	SS	df	MS	F
Between subjects	535.54	51		
A (treatments)	32.35	1	32.35	3.31
B (urban-rural)	2.46	1	2.46	
AB	32.39	1	32.39	3.32
Subject within groups Error (between)	468.38	48	9.76	
Within subjects	153.00	52		
C (measures)	8.70	1	8.70	3.02
AC	2.41	1	2.41	
BC	.92	1	.92	
ABC	2.50	1	2.50	
C X subject within groups Error (within)	138.47	48	2.88	

career choice shift: $\chi_c^2 = 5.99$ (1 df), p. $<$ .05 level of confidence. A significantly larger number of students in the experimental treatment groups changed their career choice toward a more non-traditional sex role stereotyped career.

T-Test Scores

The Project REVERSE research proposal stipulated that t-tests comparing each experimentally treated group with the appropriate control group were to be calculated. T-tests were calculated for both attitude shift scores and information accuracy scores. These t-tests were obtained through the use of an SPSS computer package. These analyses were based upon data from 390 students. The t-test values reported below are for pooled variance estimates. Of the six comparisons, there were two which were statistically significant at the .05 level of confidence. Both of these differences were with the rural condition. For the ninth grade rural students, there was a t-test = -2.14. With 78 df that was statistically significant at the p= .036 level of confidence. Also, for the twelfth grade rural students, there was a t-test = -2.17. With 81 df, that was statistically significant at the p. .033 level of confidence. T-tests for attitude shift scores are reported in tabular form (see Table 11).

There were no statistically significant differences across pairs of treatment groups for the information accuracy scores. These t-tests are reported in tabular form (see Table 12).

DISCUSSION OF THE RESULTS

One of the limitations of a static group comparison (Campbell and Stanley, 1966) designed research project is the difficulty in obtaining equivalent groups. In order to answer the question as to whether or not the groups of students who participated in Project REVERSE were or were not equivalent at the outset, a number of ANOVAS, using SPSS packaged computer programs, were made. Those preliminary analyses, based upon data from 390 students established that in many ways the treatment groups were significantly different on the pretreatment measure. Additionally, given these initial differences, the shift in sex role stereotyped attitude scores as predicted were not statistically different. In order to compute ANOVAS with a procedure that accurately analyzed data for Project REVERSE, including the repeated measure variable, data were collapsed on the gender dimension and ANOVAS were run separately for each grade level. The rationale for these shifts was presented in an earlier portion of this report.

Overall, the treatment of having REVERSE project staff (teachers-counselors) coming into academic classrooms, once a week for 12 weeks did not have much impact upon the students who participated in Project REVERSE as reflected in their self-reported attitudes and their informational accuracy scores about sex role stereotyping. The pattern of responding on

TABLE 11

T-test Comparing the Attitude Shift Scores of Experimental Group Students With Control Students for Each Grade Level In Either an Urban or Rural Situation

	GRADE 5	GRADE 9	GRADE 12
URBAN	t-test = .85 n = 35	t-test = .28 n = 93	t-test = -.61 n = 73
RURAL	t-test = 1.03 n = 26	t-test = -2.14* n = 80	t-test = -2.17** n = 83

*Statistically significant at p = .036 with 78 df

**Statistically significant at p = .033 with 81 df

TABLE 12

T-tests Comparing the Information Accuracy Scores for Experimental Group Students with Control Group Students For Each Grade Level in Either an Urban or Rural Situation

	GRADE 5	GRADE 9	GRADE 12
URBAN	t-test = .61 n = 35	t-test = -.70 n = 93	t-test = -.58 n = 73
RURAL	t-test = -.16 n = 26	t-test = -.37 n = 80	t-test = -1.05 n = 83

both the attitudinal and the informational items produced no statistically significant differences (at the .05 level of confidence) for any of the main effects or interactive effects for the twelfth grade students. Several plausible explanations for those results are offered. It is conceivable that seniors in high school have already identified which careers are potentially desirable for them relative to traditional sex role stereotypic attitudes. A number of twelfth grade students, in responding to the posttreatment questionnaire, made written comments which reflected a negative reaction to the treatment occurring in an academic class. Several made light of the questionnaire, as was indicated in their written responses. It may be that the twelfth grade is quite late for producing measurable short-term change in attitudes and/or information about sex role stereotyping. A second plausible explanation for the lack of impact on the twelfth grade students may be due to the fact the questionnaire was not a sensitive enough instrument to measure the treatment effects.

The pattern of influence for the ninth grade students was complex. There were statistically significant differences (see Table 6), however, these differences occurred only when the urban-rural dimension was a factor. Careful attention to the Figure 2, will point out several interesting results. First, the rural ninth grade students had significantly lower sex role stereotypic attitude scores than did the urban ninth grade students. This was true for both the pretreatment measure and the posttreatment measure. There was a complicated pattern in the three way interaction. The treatment dimension, the urban-rural dimension and the repeated measures dimension when interactive, produced many effects (see Appendix H).

For the ninth grade rural students, those in the experimentally treated group produced statistically significantly higher sex role stereotypic attitude scores in the posttreatment than the rural control students. The converse was true for the urban groups.

Plausible explanations for the complex pattern of significant differences are hard to come by. First, there is a significant difference between rural and urban groups. The rural students consistently produce lower sex role stereotypic attitude scores. Conceivably, the shift from elementary school to high school in the rural schools is less apparent, where students remain in largely intact groupings irrespective of gender. Whereas, in the larger consolidated high schools, students do not remain in intact groups when they go to high school, as there are actually more courses in which there are either a preponderance of men or women. Given that dramatic shift from middle school to high school, coupled with the selecting or assigning of students into specialized classes and curricula, perhaps the sex role cues are more apparent in the larger, consolidated urban high schools. If, with the above conditions, it follows that urban freshmen are going to be attending to these cues as to sex role career training and choice, and in the event that there is no societal or educational training to reduce sex role stereotypic attitude development, those sex role attitudes will crystallize. Such was the case for the urban control groups. In the event that urban freshmen

were exposed to Project REVERSE type treatments, the tendency of having sex role attitudes further crystallizing, is held at bay. There were no statistically significant changes in the urban experimental groups across the twelve week treatment period. To the extent that these explanations are plausible, it follows that Project REVERSE, while not reversing sex role stereotypic attitudes, by intervening at a critical point in time, kept them from increasing.

It is also plausible to consider that for the rural freshmen, where the project teacher/counselors intervened in the classrooms for twelve weeks, the students in the experimental groups were sensitized to sex role stereotyping issues, and that attention, which was greater than the rural controls were receiving but which was less than that which urban freshmen were exposed to through the naturally occurring school related events, resulted in significant increases in sex role stereotypic attitude development. Another possibility is that the teacher/counselors brought into the rural experimental groups may have been perceived by the rural students as being quite different and unusual and consequently, rather than being models to emulate, they became reference points from which to self-report their attitudinal position. As mentioned above, the urban-rural main effect was statistically significant. All of the two-way interactions which included the urban-rural dimension were statistically significant as well as the three way interaction. The ninth grade appears to be a critical time for attending to information about sex role stereotypic attitudes. It is at an age level when career choice and course selection issues relate to social influences on sex roles. In comparing the response patterns of ninth grade students with twelfth grade students, it is apparent from these data that the ninth grade is a more appropriate age group with which to address sex role and career choice issues.

While the results generated by the fifth grade students produced a significant treatment dimension effect, review of data points in Figure 3 reflect sizeable differences between the experimental group and the control groups for both measures. The control group condition had lower sex role stereotypic attitude scores. Perhaps, more important is the interactive effects of the treatment dimension with the urban-rural dimension.

One of the original objectives of Project REVERSE was to determine whether or not the experimental treatment had any effect upon career choice. Shifts in career choice which were indicative of less rigid sex role stereotypic attitudes were recorded. A significantly greater number of those shifts occurred in the experimental groups across the twelve week treatment period, however, such shifts occurred in only a little over 5% of the students for whom such data were available. There was some treatment effect. However, it impacted only upon a small proportion of the students. The staff teacher/counselors did have an effect upon career choice shifts of a small number of students. However, most students in the treatment groups were not influenced by the treatment.

Another of the original objectives of Project REVERSE was to compute t-tests for pairs of experimental and control groups. Those t-tests are reported in tabular fashion in Table 11. Two of those t-tests produced statistically significant differences, both of which occurred in the rural groups. The rural ninth grade controls had shifted to significantly lower sex role stereotyped attitude scores. The same was true for the rural twelfth grade students. The operationally defined distinction between rural and urban school districts made by the Project REVERSE team becomes an important distinction. Attitudes across that dimension vary. Furthermore, that dimension interacted with the other dimensions in producing two-way interaction effects. The point to be made here is that those wishing to implement Project REVERSE types of treatments will need to vary those interventions according to the type of school or community situation along the urban-rural dimension.

The results of the information accuracy concerning sex role stereotyping attitudes relative to acceptable career choices produced no statistically significant shifts. As the intervention in the experimentally treated groups occurred across twelve, one-hour a week sessions, had no significant effect, the appropriateness of the instrument used to assess information accuracy is questioned. Hindsight suggests that the 20 true-false information accuracy test was not sensitive to the treatment. In fact, the Project REVERSE team members were surprised by the fact that students typically performed very poorly (inaccurately) on that instrument. Reconceptualizing about how information accuracy should be measured, or at least a revamping of the questionnaire is needed before meaningful interpretations of such Project REVERSE type intervention can be made.

RECOMMENDATIONS

Sex role stereotyping is a process which begins at an early age. Children learn from the time of infancy that certain things are for boys and others for girls. Boys are given trucks and baseball bats to play with while girls are more likely to receive dolls and toy dishes.

Ideally, the process of combating societal attitudes which reinforce this sex role stereotyping should begin as soon as a child reaches school. Teachers, who are themselves role models for students, can help to offset the pressure to conform to societal attitudes by encouraging their students to explore many different options for their lives and by exposing them to various occupations, careers and role models. Unfortunately, not all teachers are committed or willing to provide these kinds of opportunities for their students.

The research project, REVERSE, has demonstrated the feasibility of intervening in the classroom experience at three grade levels: twelve, nine and five, with materials, exercises and techniques designed to reduce the amount of sex role stereotypic attitudes and to broaden options for both men and women as regards vocational education courses and occupational choices. The research findings and the experience of the project's teacher/counselors leads us to believe that the ninth grade, especially in urban high schools, is a crucial time for intervention in the curriculum to reduce the polarization of attitudes on the part of students in regard to sex role stereotyping.

The REVERSE Projects findings and classroom experience also leads us to recommend that if the project is to be replicated or a similar program undertaken, the development of lesson plans and intervention strategies be based on the needs of an individual class. The significance of the urban-rural dimension points out the need to tailormake strategies to reach students where they are in their own thinking.

Our experience also suggests that it is very important to enlist the support and cooperation of the teachers involved. Students in classes where the teachers were actively involved in the project proved much more responsive than those in classes where the teachers were only peripherally involved.

The staff also recommends that, if possible, the content of non-stereotyped sex role teaching be integrated into the regular curriculum of each class. This should be done by the classroom teacher. In cases where this is not feasible, those teacher/counselors who are planning intervention strategies should work closely with the classroom teacher to provide for the continuity of intervention strategies with the course content.

If intervention strategies for non-stereotypic sex roles are going to constitute a curriculum independent of that of the regular class, it is suggested that a different schedule be pursued. Instead of visiting the experimental classes for one hour per week over the semester or, in the case of the fifth grades, over an entire school year, the course content might have more effect if taught in a block of time, perhaps for one hour

a day for three weeks. Teacher evaluations reinforce this recommendation, but the teachers also stated that they would be reluctant to give up that much class time.

The project teacher/counselors noted the lack of information most students are receiving about careers and vocations. More emphasis should be put on this type of information with particular stress on the types of training and aptitudes needed and available job opportunities.

There is also a great need for upgrading the image of vocational education and blue collar jobs. Any course content should stress the importance of the skills and training needed and the value of this type of work for our society. One way of doing this would be to use role model teams more extensively. Judging by the reported popularity and success of role model teams, the staff recommends this mode of intervention at all grade levels. Being able to see and talk with men and women who are actually doing the job seems to have a greater impact on students than being lectured to or told about vocational and career choice.

It is particularly important that in classrooms of mixed gender that students be exposed to male role models in non-traditionally male jobs. Both men and women students are less inclined to accept men in non-traditionally male fields than they are to accept women in non-traditionally female fields. The appropriate use of role model teams seems to be one way to offset this bias.

If a research project such as REVERSE were to be replicated it is the recommendation of the Project staff that the test instrument be revised and simplified. In some instances, the items were ambiguous, in others it was not appropriate to the grade level and in all cases it was too long. Students simply got bored with it, espeically the fifth grade students who were required to take it three times.

The Project REVERSE team was unable to obtain results for the third objective, that is, "to produce a measurable difference in the vocational behavior of project exposed students (vs. control group as registered in the numbers of students selecting non-traditional vocational courses.)" Because of the time limitations, (one year), it was not feasible for the project team to actually pursue the information as to course selection in vocational education which would or would not bear out the hypothesis of the REVERSE project. It is recommended that in the future,time be allowed for projects of this nature to gather this necessary information.

Finally, it is the recommendation of the staff that such efforts as have been made by the REVERSE project be continued and replicated wherever possible. Although the analysis of the research results did not demonstrate great change of attitudes and behavior towards sex role stereotyping in vocational education or occupational choices, the staff believes that their efforts may have had long-range consequences for the goals of the project. Not only have teachers indicated their commitment to incorporating materials and goals of the project into their classroom teaching, but the

teacher/counselors have been approached many times by students who had been in classrooms in which they taught with questions and comments which indicate the effectiveness of the intervention techniques on some students' thinking and attitudes.

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APPENDIX A

FACSIMILE OF TEST INSTRUMENT

FOR OFFICE USE

BEGIN HERE

Today's Date _____ Name _____

Name of Your School _____ Grade _____

Gender (Boy ___ Girl ___)

SURVEY

Decide on the degree to which you agree or disagree with each of the following statements, and then mark your answer by placing an X in one of the five boxes following each statement.

PART I

Possible responses are:

- [SD] I strongly disagree with this statement.
- [D] I disagree with this statement.
- [O] I have no feelings about this statement.
- [A] I agree with this statement.
- [SA] I strongly agree with this statement.

Each of your answers should be how you feel about the statement, NOT how you think other people feel. Even though this task is not timed we would like you to move right along. Make certain to do each item.

EXAMPLE

Apple pie is delicious.

If you strongly disagree with that statement place an X below SD.

SD	D	O	A	SA
X				

		SD	D	O	A	SA	
1.	Money is the only real reason for women working.	☐	☐	☐	☐	☐	1.
2.	All females should be prepared to support themselves financially.	☐	☐	☐	☐	☐	2.
3.	Any man who grows house plants for a hobby is feminine.	☐	☐	☐	☐	☐	3.
4.	Men should hold doors open for women.	☐	☐	☐	☐	☐	4.
5.	Auto mechanics is an appropriate career for females.	☐	☐	☐	☐	☐	5.
6.	Women who have jobs are unhappy.	☐	☐	☐	☐	☐	6.
7.	When I get married I plan to share the household chores with my spouse.	☐	☐	☐	☐	☐	7.
8.	Married women should hold jobs so they can be independent.	☐	☐	☐	☐	☐	8.
9.	When planning for a career, a girl should consider technical and skilled jobs that have traditionally been for men only.	☐	☐	☐	☐	☐	9.
10.	Full time, outdoor jobs are unsuitable for women.	☐	☐	☐	☐	☐	10.
11.	Being a nurse is a woman's job.	☐	☐	☐	☐	☐	11.
12.	Women's place is in the home.	☐	☐	☐	☐	☐	12.
13.	Most men would make a good receptionist.	☐	☐	☐	☐	☐	13.
14.	Most girls who take machine shop are unfeminine.	☐	☐	☐	☐	☐	14.

		SD	D	O	A	SA	
15.	Cutting the grass is a man's job.	☐	☐	☐	☐	☐	15.
16.	Working men are capable of raising children.	☐	☐	☐	☐	☐	16.
17.	Girls should be encouraged to enroll in traditionally all-male vocational courses like air conditioning repair.	☐	☐	☐	☐	☐	17.
18.	Most girls are physically strong enough to be welders.	☐	☐	☐	☐	☐	18.
19.	Women can check the oil in the car as easily as men can.	☐	☐	☐	☐	☐	19.
20.	Most men dislike intelligent women.	☐	☐	☐	☐	☐	20.
21.	Girls should learn a job skill while in high school.	☐	☐	☐	☐	☐	21.
22.	It would be good to have a woman president.	☐	☐	☐	☐	☐	22.
23.	Most boys who take secretarial training are unmasculine.	☐	☐	☐	☐	☐	23.
24.	Men are better bosses than women.	☐	☐	☐	☐	☐	24.
25.	If I had to make a choice, I would choose a job that made me feel important rather than a job with a high salary.	☐	☐	☐	☐	☐	25.
26.	Women are too emotional to be judges.	☐	☐	☐	☐	☐	26.
27.	Most boys would make fun of a girl who took welding.	☐	☐	☐	☐	☐	27.
28.	Most girls would laugh at a girl who enrolled in plumbing.	☐	☐	☐	☐	☐	28.

		SD	D	O	A	SA	
29.	Women truck drivers are feminine.	☐	☐	☐	☐	☐	29.
30.	Raising children is primarily the mother's responsibility.	☐	☐	☐	☐	☐	30.
31.	Playing another person's role makes it easier for me to understand that person.	☐	☐	☐	☐	☐	31.
32.	I feel good when I stand up for my point of view.	☐	☐	☐	☐	☐	32.
33.	Boys who want to become telephone operators are strange.	☐	☐	☐	☐	☐	33.
34.	I would laugh at a boy who is enrolled in beautician's school.	☐	☐	☐	☐	☐	34.
35.	I intend to consider non-traditional jobs for my lifetime career.	☐	☐	☐	☐	☐	35.

PART II

For the next 20 items there are only 2 possible responses. An [A] response means, Yes, I agree. A [D] response means, No, I disagree.

		D	A	
36.	Currently, half of all women are working.	☐	☐	36.
37.	Women with college degrees earn as much money as men with college degrees.	☐	☐	37.
38.	It is illegal to pay women less than men for the same job.	☐	☐	38.
39.	Most working women are not married.	☐	☐	39.
40.	Most women work because they need the money to help support their families.	☐	☐	40.
41.	In Marquette, secretaries earn as much as electricians.	☐	☐	41.
42.	Women earn less than men earn because women are concentrated in low-paying, dead-end jobs.	☐	☐	42.
43.	It is illegal for employers to refuse to hire qualified women.	☐	☐	43.
44.	Today there are many job openings for women in skilled jobs such as plumbing and welding.	☐	☐	44.
45.	In high school, all job training courses are open to girls.	☐	☐	45.
46.	The average woman worker today is single and under 20.	☐	☐	46.
47.	Women earn less than men earn because women have less education.	☐	☐	47.
48.	Working women are taking jobs away from men.	☐	☐	48.

		D	A	
49.	More than one-third of all women workers are in clerical jobs like secretary, typist, etc.	☐	☐	49.
50.	A woman can have a career while raising a family.	☐	☐	50.
51.	Women workers are absent from the job because of illness more than men.	☐	☐	51.
52.	In high school, a girl can learn to be an auto mechanic.	☐	☐	52.
53.	Physically, women are capable of working as machinists.	☐	☐	53.
54.	Women can perform any job men can perform.	☐	☐	54.
55.	Many women are smart enough to become engineers.	☐	☐	55.

PART III

DIRECTIONS: For the rest of the survey, write your answers or place an X in the appropriate box.

NOTE: Vocational courses include building trades, auto mechanics, welding, food service, steno, clerical, distributive ed., nurse aide, printing, auto body, cosmetology, electronics, small engine, child care, accounting, and computing.

56. Have you considered taking a vocational course in high school or vocational training after high school?

___ A. Yes.

___ B. No.

57. If yes, with whom did you discuss this? (You may select more than one if necessary.)

___ A. parent

___ B. friend

___ C. counselor or teacher

___ D. neighbor

58. Are you planning to graduate from high school?

___ A. Yes

___ B. No

59. What are your plans for education beyond high school?

___ A. junior college

___ B. four-year college or university

___ C. business or technical school

___ D. on-the-job training or apprenticeship

___ E. none

60. What are your plans for working after graduating or leaving high school?

___ A. begin working immediately

___ B. begin working after further education or training

___ C. do not plan to work

___ D. undecided, but I have given it quite a bit of thought

___ E. undecided, I haven't really thought too much about it yet

61. After leaving high school, do you plan to continue living with your parents?

___ A. No.

___ B. Yes, until I complete my education

___ C. Yes, until I get married

___ D. Yes, until I get a full-time job

62. After leaving high school, do you expect to receive financial support from your family?

___ A. No, I will be expected to support myself

___ B. Yes, but only in case of an emergency

___ C. Yes, until I complete my education

___ D. Yes, until I can support myself

___ E. Yes, until I get married

63. Do you plan to get married at some time in your life?

___ A. Yes

___ B. No

64. If you do plan to get married, when do you plan to get married?

___ A. during high school

___ B. following high school graduation

___ C. following further education or training

___ D. after working at least two years

___ E. undecided

65. If you do plan to marry, do you plan to have children?

___ A. Yes

___ B. No

66. If you <u>do</u> plan to have children, what are your future working plans?

___ A. do not ever plan to work

___ B. quit work when I marry

___ C. work until I have children and quit permanently

___ D. quit work when I have children and resume work after they are old enough

67. If you do not plan to have children or do not plan to marry, what are your future working plans?

___ A. do not ever plan to work

___ B. work for a few years

___ C. work continuously

68. When you start work, what job would you like to have?

_____

69. How much do you think you will be able to earn when you get that job?

___ A. $5,000 per year

___ B. $7,000 per year

___ C. $10,000 per year

___ D. $15,000 per year

___ E. more than $15,000 per year

70. I believe that my family earns about

___ A. $5,000 per year

___ B. $7,000 per year

___ C. $10,000 per year

___ D. $15,000 per year

___ E. more than $15,000 per year

71. How much education will you need to get the job you desire?

___ A. less than high school graduation

___ B. high school graduation

___ C. high school graduation plus some further education

___ D. four years of college or more

___ E. I don't know

72. Has your mother worked outside the home?

___ A. Yes

___ B. No

73. Is she working now?

___ A. Yes

___ B. NO

74. What does (did) she do? _____

75. What is your father's occupation? _____

76. How many years of school did your father complete?

___ A. 0-8

___ B. some high school

___ C. high school graduate

___ D. college

___ E. don't know

77. How many years of school did your mother complete?

___ A. 0-8

___ B. some high school

___ C. high school graduate

___ D. college

___ E. don't know

78. Are you working now?

___ A. Yes

___ B. NO

79. Do you plan to work while in high school?

___ A. Yes

___ B. No

80. How long have you lived in this community?

___ A. Less than 1 year

___ B. 1 to 2 years

___ C. 2 to five years

___ D. 5 to 10 years

___ E. all my life

81. Are you planning to take a vocational course or vocational training in the future?

___ A. Yes

___ B. No (go to question 83)

82. If yes, in what field? _____

83. If no, why not? _____

WE THANK YOU FOR COMPLETING THIS SURVEY.

Joann Sharkey

Bill Keithler

Counselors, Project REVERSE
Northern Michigan University

These items have been taken in part from Project EVE (Houston, Texas, 1976) and are being used for educational and study purposes only.

APPENDIX B

LESSON PLAN OUTLINES

A P P E N D I X B - 1

Lesson Plans-Grades 5 (and 6)
First Semester

LESSON PLAN

Title: Word Usuage & Word Definitions

Objective: Students awareness will be increased concerning the definitions of the words: label, stereotyping, and role.

Tools: Magazines, poster board, scissors, paste, paper & pencil.

Procedure:

A. Students will write their definitions of label, stereotyping, & role. These definitions are shared with the group & discussion takes place.
B. Students will find and cut out labels from magazines & make collages with these labels on poster board.
C. Collages are presented to the group. The transition is made from labels in labeling people. Students explore the collages with the group.
D. Summary & discussion
    1. Do we label people?
    2. When are labels harmful?
    3. When are labels helpful?
    4. What labels are placed on women and men?

Time: 60 minutes

LESSON PLAN

Title: Prejudice

Objective: Students will increase their awareness of 'prejudice', the historical perspective and also their interaction concerning this subject.

Tools:
A. Prejudice awareness worksheet
B. Film: Prejudice: Causes, Consequences, Cures

Procedure:
A. Prejudice awareness worksheet
   1. Explain to students that they will be given a 'psychological' test, but do not explain what that test will measure. Assure them, that this is a fun test. Inform them that they are to answer a series of questions, using the paper supplied and numbering them in the order given. Fold the paper in half lengthwise.

B. Answer yes, no, or uncertain to the following questions:
   1. Do you like cats?
   2. Do you like raw oysters?
   3. Do you like classical music?
   4. Would you like to live in Europe?
   5. Do you like to waltz?
   6. Would you like to know what is in this package I am holding? (Hold up a small box that you have previously placed an object that is either valuable or worthless and have wrapped either in a fancy way or in a careless way.)

C. Have the students turn their papers over and answer the following questions, yes or no:
   1. Have you ever owned a cat for more than a month?
   2. Have you ever eaten a raw oyster?
   3. Have you ever attended a symphony or listened to a complete recording of one?
   4. Have you ever been to Europe?
   5. Do you know how to waltz?
   6. Do you think there is something valuable in this package? (yes, no, or uncertain)

D. When they have written their answers, have the students unfold the paper so both sets of answers are visible. To score the test they are to use the following procedure:
   1. They get a zero if the second part of the question was answered no and the first part was answered either yes or no.
   2. They get one point if they answered the second part of the question yes and the first part was answered either yes or no.

3. They get two points if they answered the second part of the question no and answered the first part uncertain.
4. They get three points if they answered the second part of the question yes and the first part of the question uncertain.

Each pair of questions is scored in this way, except for the last question regarding the box. Regardless of how they answer the first part, they receive a zero if they answer either yes or no to the second part and three points if they answer uncertain.

E. Film is shown and time is allotted for discussion.

Time: 60 minutes

LESSON PLAN

Title: Success and Strengths

Objective: Students will identify their strengths and begin accepting compliments and positive feedback regarding success.

Tools:
A. "Success Analysis" Worksheet
B. Pencils

Procedure:
A. Students are given the Success Analysis sheet.
B. The following instructions are given.
   1. Divide your life into three chapters. For example, places lived; preschool, elementary school or high school attended.
   2. For each"chapter" list four successes and give reasons why you consider these success.
   3. Complete the remaining sections.
C. After the students complete the Success Analysis, they are divided into two groups, each with a teacher/counselor as an active participant.
D. The Success Analysis Sheets are used as the basis for discussion by the two groups.

Time: Distributing and filling out Success Analysis sheet - 15 minutes.
Discussion - 30 minutes.

WORKSHEET

SUCCESS ANALYSIS

	List Successes	Reasons Why
CHAPTER 1	1. 2. 3. 4.	
CHAPTER 2	1. 2. 3. 4.	
CHAPTER 3	1. 2. 3. 4.	
	Most Successful Experience	
	One Success During the Past Week	
	Two Anticipated Successes in the Next Few Weeks: 1. 2.	

A successful experience for me involves: _____

_____

_____

Title: Values and Decision Making

Objective: Students will be exposed to decision making process within a group setting and on an individual basis.

Tools: A. NASA Exercise Worksheet (attached)
B. Voting Your Values Worksheet (attached)

Procedure: A. NASA Exercise Worksheet (attached)
Discussion
B. Voting Your Values Worksheet (attached)

Time: 60 minutes

Name:_____

NASA EXERCISE INDIVIDUAL WORKSHEET

INSTRUCTIONS: You are a member of a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Due to mechanical difficulties, however, your ship was forced to land at a spot some 200 miles from the rendezvous point. During landing, much of the equipment aboard was damaged, and, since survival depends on reaching the mother ship, the most critical items available must be chosen for the 200-mile trip. Below are listed the 15 items left intact and undamaged after landing. Your task is to rank order them in terms of their importance to your crew in allowing them to reach the rendezvous point. Place the number 1 by the most important item, the number 2 by the second most important, and so on, through number 15, the least important. You have 15 minutes to complete this phase of the exercise.

_____ Box of matches

_____ Food concentrate

_____ 50 feet of nylon rope

_____ Parachute silk

_____ Portable heating unit

_____ Two .45 calibre pistols

_____ One case dehydrated Pet milk

_____ Two 100-lb. tanks of oxygen

_____ Stellar map (of the moon's constellation)

_____ Life raft

_____ Magnetic compass

_____ 5 gallons of water

_____ Signal flares

_____ First aid kit containing injection needles

_____ Solar-powered FM receiver-transmitter

NASA Exercise - Answer Sheet

1. 13 matches - single most critical problem
   protection from cold
   fire a signal

2. Hand Ax - continuous supply of wood
   frequently most used item
   butcherivo

3. 20' X 20' Canvas - protection from wind
   shelter

4. Sleeping Bags - -20° good to

5. Maple Syrup - nourishment quick energy
   use of can to boil water

6. 250 1/4" rope - construction of shelter
   traps, snares
   thread as fishing line

7. Three pair Snowshoes - get around camp

8. One aircraft Innertube - slingshot, blacksmoke

9. Mirror and Safety Razor - communicating 5-7 million candle power,
   razor cutting

10. Four Battery Flashlight - energy source of light signaling

11. 151 Rum - disinfectent, start fire
    moral boost

12. Alarm Clock - time piece navigation, find N
    fish hooks and lures, firewatch

13. Magnetic Compass - unreliable Iron Ore

14. Book - start fire, entertainment
    toilet paper

15. Water Purification Tab - water A, pure as anywhere

VOTING YOUR VALUES WORKSHEET

Objective: To enable students to take a public position on a variety of issues and discover the range of diversity regarding value questions that exists in their class.

Procedure: Students will vote by behavioral signals at the mention of various items and issues. A follow up discussion allows them to analyze how it affected them to clarify their values in this manner to themselves and to others.

Explain to the students that you will be asking a series of questions about a variety of issues and everyone will be voting on these questions all at once without talking.

Tools: A. Voting Procedure

VOTE	BEHAVIOR
1. Strongly agree	Hands held high above head
2. Agree	Hands held at shoulder or head height
3. "I don't know" or "pass" . .	Arms folded across chest
4. Disagree	Thumbs turned down
5. Strongly disagree.	Thumbs turned down with arms extended as low as possible

B. Voting sentences

1. "How many of you. . .
2. Had a good day yesterday?"
3. Needed an extra day for last weekend?"
4. Had a good laugh today?"
5. Would like to try hand-gliding . . . skydiving . . . scubadiving?"
6. Want to change something at this school?"
7. Like yogurt . . . hamburgers. . . ice cream. . . school . . . liver?"
8. Think grades are a good way to tell what a person has learned from a class?"
9. Think of yourself as a happy person . . . good student?"
10. Think it is okay for girls and women to cry. . . boys and men?"
11. Have a private place you like to go when you want to be alone?"

C. Unfinished sentences

1. "I learned . . ."
2. "I was surprised to find out . . ."
3. "I discovered . . . "

4. "I was delighted to find out . . ."
5. "I was (pleased/displeased) that . . ."
6. "A person participating in this activity is likely to conclude . . ."
7. "I see that I need to . . ."

D. Discussion questions

1. "What did this session mean to you?"
2. "What do you think the group learned from this?"
3. "What does this tell us about ourselves?"

Junior High Interchange
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Human Development Training Institute

Title: Time

Objective: The students will become aware of the fact that the future is here and now; determine the ramifications and recognize the value system of society as it applies to the individual.

Tool:

A. Film: Future Shock
B. Discussion topics

1. Future Consciousness - the ability to recognize that the future has already arrived.
2. Future and Technology - accelerated change made possible by technology implies philosophical as well as sociological upheaval for man and society.
3. Future and Society - as the pace of change speeds up, man's relationship to family, friends, community is increasingly temporary.
4. Future and Ecology - vast ecosystems are out of balance and man is only vaguely concerned about the consequences.
5. Future and the Individual - impermanence, overchoice, shattered structures, changes bombarding our minds and bodies result in alienation, anxiety and stress.
6. Future and Values - if the consequences of rapid change are widely percurred and understood, if society recognizes the need to make choices.

Procedure:

A. Preview film
B. Discussion topics

Time:

A. Film - 43 Minutes
B. Discussion topics - 20 minutes

LESSON PLAN

Title: Success--Careers

Objective: Students will list in rank order his/her successes using the worksheets provided, and verbally distinguish the importance of their personal successes in making tentative career choices.

Tools: Careers and success worksheets.

Procedure:

A. The class will be divided into two groups. The success sheets will be explained to students.

B. Discussion follows as each student shares a success from each chapter. Each student shares another "most successful experience."

C. Using the Career worksheet, students rank five careers that are of interest to them. Career choices are also shared with the group and discussion is encouraged.

Time: 60 minutes

Success Sheet - Things I Do Well

Chapter I

1.

2.

3.

4.

Chapter II

1.

2.

3.

4.

The most successful experience for me is. . .

_____

_____

_____

CAREERS

____ 1. Science
____ 2. Religion
____ 3. Library and Museum
____ 4. Arts and Crafts
____ 5. Teaching
____ 6. Entertainment
____ 7. Farming
____ 8. Athletics
____ 9. Mathematics and Computers
____10. Animals
____11. Health
____12. Law Enforcement
____13. City Services
____14. Forestry
____15. Government and Law
____16. Business
____17. Office Work
____18. Sales
____19. Hotel and Restaurant
____20. Child Care
____21. Automotive Services
____22. Home Maintenance and Repair
____23. Short-Distance Driving
____24. Long-Distance Driving
____25. Cargo Handling
____26. Air and Space
____27. Railroad
____28. Water
____29. Electricity
____30. Petroleum and Natural Gas
____31. Atomic Energy
____32. Iron and Steel
____33. Factory Work
____34. Construction
____35. Mining
____36. Printing
____37. Writing

LESSON PLAN

Title: Career Information

Objective: Students will compare various career and vocational choices and the requirements necessary to attain those choices by listing the educational requirements, experience, places of employment, and salary from the information available.

Tools: Career Cards from
A. Career Awareness Exploration Project
B. Dreams to Reality Kit
C. Toward Affective Development

Procedure: A. Students are to choose at least two cards from the career card files. The task is to explore the education, training, wage scale, job projections and areas of related employment required for each career.

B. The game "Guess that Job" is then explained. One student has a "secret" career (i.e. police woman, child care, mechanic). Five or six students ask appropriate yes-no questions to try to guess the secret career. The secret is shared with the audience, in order to maintain their interest, but silence must be maintained. (Patterned after the game, "What's My Line".)

Appropriate questions are generated from the entire class before the game begins. Volunteers are used to fill the roles.

Time: A. 20 minutes
B. 20 minutes

Title: Role Model Presentation

Objective: Students will be exposed to Role Model teams which intend continual support and information toward non-traditional career options.

Procedure:
A. Introduction of Role Model team members
B. Individual Role Model team member gives brief outline of career
C. Students will be given opportunity to guess career choice of Role Model - based on "What's My Line"
D. Role Model will go into further depth in regard to life style and career choice.
E. Student discussion throughout presentation

Tools: Two Tole Model team members

Time: 60 Minutes

LESSON PLAN

Title: My Career

Objective: Students will identify their career choices at this time in their life.

Tools:
A. Poster paper, scissors, tape, glue, stapler, colored paper.
B. Camera

Procedure:
A. Students will chose a career that appears desirable to them.
B. The students will design a symbol that represents that career. Symbols may be hats, badges, parts of uniform or what ever suits the students.
C. Students will present their creations to the class & explain some awareness of the career choice.
D. Picture taking enhances the students desire to be creative. The pictures are shown at a later date.

Time: 60 minutes

LESSON PLAN

Title: Values and Career Choices

Objectives: Students will explore their individual value system and relate this to their career goals.

Tools:
A. Worksheet, 'Considering Success'
B. Worksheet, 'Considering Careers'
C. Pencils

Procedure:
A. The class is divided into two groups, each having a teacher/counselor as facilitator.
B. The worksheet 'Considering Success' is distributed and filled out individually.
C. Each student then shares her/his least important item and most important item, within the small group.
D. The worksheet 'Considering Careers' is distributed and filled out individually.
E. Each student then shares her/his least important and most important item, within the small group.
F. Convene to large group and discuss events.

Time:
A. Considering Success - 25 minutes
B. Considering Careers - 25 minutes
C. Group Discussion - 15 minutes

CONSIDERING SUCCESS

What's important to you about success? What qualities are important to you about success?

Look over the list below and rank all these items. 1 - being most important, 16 - being least important

_____ Financial rewards

_____ Independence/Freedom

_____ Being different

_____ Doing something better than someone else

_____ Achievement - accomplishing what I set out to do

_____ Being on my own

_____ Doing the best that I can

_____ Self discipline

_____ Having power

_____ Keeping an open mind

_____ Having responsibility

_____ Receiving a blue ribbon, metal or trophy

_____ Having fun at what I do

_____ Being brave

_____ Receiving praise and recognition

_____ Having authority

CONSIDERING CAREERS

What's important to you about working? There are many things to consider. Look over the list below and rank the items; 1 - most important, 2 - least important.

_____ a high salary

_____ being independent

_____ ability to be creative

_____ freedom to do what you want, more or less

_____ security - or knowing that the job will be permanent

_____ good vacations and plenty of time off

_____ excellent medical, retirement or savings benefits

_____ pleasant surroundings - nice office, convenient location

_____ friendly and cooperative co-workers

_____ power or status

_____ a chance to travel

_____ an opportunity to help people

_____ regular working hours

_____ a chance for advancement

_____ a chance to learn new skills

How would you rate your own skills? Mark an x along the line which represents where you think you are...where you rate.

	POOR	PRETTY GOOD	EXCELLENT
Getting along with other people			
Following directions			
Thinking of new ideas			
Creative writing			
Public speaking			
Planning projects and getting work done			
Organizing for efficiency			

List 3 or 4 careers you've heard about which you think are interesting.

1.
2.
3.
4.

LESSON PLAN

Title: Men are/ Women are

Objective: Students will express their individual feelings concerning male and female characteristics.

Tools:
A. Worksheet--Men Are/Women Are
B. Role Reversal Fantasy
C. Pencil

Procedure:
A. Directions of worksheet
B. Role Reversal Fantasy

I would like you to relax, get as comfortable in your chair as possible. Concentrate on your breathing. (30 seconds) If you become distracted by outside noise always come back to your breathing. Relax. Now, I want you to get an image in your mind of who you, as an individual would be like ten years from now.

Close your eyes. Relax. Concentrate on your breathing.

Think of yourself ten years from now. Imagine for a minute where you'll be and what you will be doing.

Where are you living? In the country? In the city? In the mountains?

Are you married? Do you have children? Did you choose not to have children? Are you single?

What kind of shelter do you have? A house? An apartment? What does it look like?

What do you do for a living? Do you spend a lot of time at work? What is your occupation or career? Will you be into this career for your life span or do you plan to change careers?

How do you spend your free time? What kind of hobbies do you enjoy? Do you enjoy doing them alone or with others?

What kind of recreational activities do you enjoy doing? Do you do them alone or with small or large groups?

Now fantasize being a member of the opposite sex.

What would your hair look like? Would it be long or short? What color?
What does your body look like? Tall? Short?
What kind of clothes are you wearing? How are you dressed?
When you walk, do you walk differently? Long strides, or short, what are your arms doing as you walk?
What do your facial features look like?
When you sit in a chair are you slumped forward, or upright?

Imagine waking up in the morning. What clothes do you put on? Are you more or less concerned with your appearance? How do you react with your parents and how do they react with you?
On your way to school, who do you walk with and what kind of things do you talk about? What kinds of things do you do differenetly? What things do you do at lunch time?
After school what kinds of things do you do? Athletics? Debate? Drama?
Now, you can relax and be yourself once again.
Discussion

Time: A. Worksheet 20 minutes
B. Role Reversal 15 minutes

Women Are:

Affectionate	Competent	Receptionists
Supportive	Presidents	Understanding
Ambitious	Competitive	Able to show emotions
Gentle	Aggressive	Assertive
Self-confident	Adventurous	Flexible
Decisive	Sensitive	Sensible
Leaders	Carpenters	Honest
Powerful	Capable of raising children	Nurturing
Athletic	Independent	
Nurses	Fashion Conscious	

DIRECTIONS:

A. Select 5 traits you think most appropriately complete the phrase "men are" and write them in column 1 (substitute other traits if wish).
B. In column 2 write 10 traits selected by your group.

Individual Preference	Group Preference
1._____	1._____
2._____	2._____
3._____	3._____
4._____	4._____
5._____	5._____
	6._____
	7._____
	8._____
	9._____
	10._____

MEN ARE:

Affectionate	Competent	Receptionists
Supportive	Presidents	Understanding
Ambitious	Competitive	Able to show emotions
Gentle	Aggressive	Assertive
Self-confident	Adventurous	Flexible
Decisive	Sensitive	Sensible
Leaders	Carpenters	Honest
Powerful	Capable of raising children	Nurturing
Athletic	Independent	
Nurses	Fashion Conscious	

DIRECTIONS:

A. Select 5 traits you think most appropriately complete the phrase "men are" and write them in column 1 (substitute other traits if wish).
B. In column 2 write 10 traits selected by your group.

Individual Preference	Group Preference
1._____	1._____
2._____	2._____
3._____	3._____
4._____	4._____
5._____	5._____
	6._____
	7._____
	8._____
	9._____
	10._____

LESSON PLAN

Title: Value Systems and Self Defeating Behavior

Objective: Students will recognize the value systems of others and also recognize self defeating behavior.

Tools: Paper and pencils
Film: Pack Your Own Chute

Procedure:
A. Worksheet is to be divided into 5 columns. Complete the following tasks:
   1. First column: List the ten people who are close to you.
   2. Second column: Write the gift that you gave that person last Christmas.
   3. Third column: List an intangible gift you could give to each person that would dramatically change some aspect of that persons behavior, for example, being able to listen better.
   4. Fourth column: List some tangible gift you could give each person that would help him/her achieve the behavior change that you listed in the third column.
   5. Fifth column: List a gift that each of these people could give you to change one or more of your behavior patterns.
B. Preview film and discussion.

Time:
A. 15 minutes
B. 30 minutes

A P P E N D I X B - 2

Lesson Plans-Grades 5 (and 6)
Second Semester

Title: Role Model Presentation

Objective: Students will be exposed to Role Model teams which extend continual support and information toward non-traditional career options.

Procedure:

A. Introduction of Role Team members.
B. Individual Role Model team member gives brief outline of career.
C. Students will be given opportunity to guess career choice of Role Model - based on "What's My Line?".
D. Role Model will go into further depth in regard to life style and career choice.
E. Student discussion throughout presentation.

Tools: Two Role Model Team Members.

Time Required: 60 minutes.

Title: Media Week

Objective: Students will become aware of and familiar with media's influence and messages, both blatant and subliminal in regard to sex role stereotyping.

Tools:
Filmstrip: Tear Open The Boxes 11 minutes
Toys
Books
Advertising
Album Covers
Filmstrip: Cinderella is Dead

Procedure: Facilitators demonstrate with the aid of material (listed under tools) ways and means that stereotypes are established and perpetrated.

Time Required: 60 minutes.

Title:	Vocational Educational Information
Objective:	Students will be exposed to vocational educational information and union apprenticeship program.
Tools:	Film: Apprenticeship.
Procedure:	A. Preview film B. Discussion
Time Required:	A. 40 minutes B. 20 minutes

Title: Sex Role Stereotyping - Text Books

Objective: Students will be exposed to practices that address sex role stereotyping, presentation takes into account school text books, their contents and demonstrates the messages that prevail.

Tools: A. Slide presentation: Images of Males and Females in Elementary Textbooks

Procedure: A. Preview film
B. Discussion

Time required: 60 minutes

VOTING YOUR VALUES WORKSHEET

Objective: To enable students to take a public position on a variety of issues and discover the range of diversity regarding value questions that exists in their class.

Procedure: Students will vote by behavioral signals at the mention of various items and issues. A follow-up discussion allows them to analyze how it affected them to clarify their values in this manner to themselves and to others.

Explain to the students that you will be asking a series of questions about a variety of issues and everyone will be voting on these questions all at once without talking.

Tools:

A. Voting procedure

VOTE	BEHAVIOR
1. Strongly agree.....	Hands held high above head
2. Agree.....	Hands held at shoulder or head height
3. "I don't know" or "pass".	Arms folded across chest
4. Disagree.....	Thumbs turned down
5. Strongly disagree.....	Thumbs turned down with arms extended as low as possible

B. Voting sentences

1. "How many of you..
2. Had a good day yesterday?"
3. Needed an extra day for last weekend?"
4. Had a good laugh today?"
5. Would like to try hand-gliding,...skydiving,... scubadiving?"
6. Want to change something at this school?"
7. Like yogurt,...hamburgers,...ice cream,...school, ...liver?"
8. Think grades are a good way to tell what a person has learned from a class?"
9. Think of yourself as a happy person,...good student?"
10. Think it is okay for girls and women to cry,... boys and men?"
11. Have a private place you like to go when you want to be alone?"

C. Unfinished sentences

1. "I learned... ."
2. "I was surprised to find out... ."
3. "I discovered... ."
4. "I was delighted to find out... ."
5. "I was (pleased/displeased) that... ."
6. "A person participating in this activity is likely to conclude... ."
7. "I see that I need to... ."

D. Discussion questions

1. "What did this session mean to you?"
2. "What do you think the group learned from this?"
3. "What does this tell us about ourselves?"

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Title: Career Awareness

Objective: Students will become aware of diversities and similarities as they relate to various careers and also become aware of the diversities and similarities of careers as they relate to their own world.

Tools:
A. Worksheet - Jobs I Know
B. Worksheet - Job Differences

Procedure:
A. Students will fill in blank on worksheet "Jobs I Know."
B. Discussion
C. Students will fill in blank on worksheet "Job Differences."
D. Discussion
E. "Guess That Career" Pantomime
   1. Class divided into groups of 5-7 students
   2. Group responsibility includes:
      a. Decision of non-traditional career choice
      b. Division of labor
   3. Group pantomimes career
   4. Remaining groups guess

Time: 60 minutes

Title: Historical Perspective/Sex Role Development

Objective: Student will acquire an accurate historical perspective; recognition of socialization process and alternatives to sex role stereotyping.

Tools:
A. Film: Sex Role Development
B. Worksheet: "Do Sex Role Expectations Exist?" (attached)

Procedure:
A. Film preview - Sex Role Development
B. Administer worksheet
C. Group discussion

Time:
A. 23 minutes
B. 10 minutes
C. 30 minutes

"Do Sex Role Expectations Exist?"

A CLASS VOTING SEQUENCE AND DISCUSSION:

Description: As a list of activities is read to the class, each student makes a note as to whether each activity is performed by a male or female. The session is culminated with a vote and discussion of students' feelings about sex roles.

Objective: This is an appropriate activity for initiating this unit on sex roles because it enables students to become dramatically aware that, yes, sex role expectations do exist.

Time Needed: Approximately 30-40 Minutes

Materials Needed: Writing materials

Procedure: Ask the class to get out papers and pencils and number down the side of their papers to 31. Then tell them you are going to read a list of things people do. Ask them to put an M (for male) by each number if the item is something they usually see men or boys do and to put an F (for female) by each number if the item is something they usually see women do. Then read the list (with very short pauses so students will respond with their first reactions) as follows:

1. plays football
2. drives a bulldozer
3. vacuums a rug
4. sings in a rock'n'roll band
5. changes a diaper
6. plays pool
7. sews a shirt
8. fixes a car
9. bakes a cake
10. has a baby
11. digs a ditch
12. types a letter
13. prescribes medicine
14. washes dishes
15. plans a business deal
16. plays golf
17. designs cars
18. works as a volunteer helper in a hospital
19. babysits
20. runs for president
21. mops a floor
22. fights a bull
23. makes a bed
24. irons a shirt
25. nurse
26. waitress
27. pilot
28. TV announcer
29. race car driver
30. iron worker
31. kindergarden teacher

Title:	Vocational Educational Information
Objective:	Students will be exposed to vocational educational information and non-traditional career information.
Tools:	A. film - Anything You Want To Be
Procedure:	A. Preview film (42 minutes) B. Discussion in regard to film's message
Time Required:	60 minutes.

TWENTY THINGS I LIKE TO DO

Procedure:

A. Students instructed to list 20 items of things they like to do.
B. Facilitator will read list of symbols.
C. Student will mark items that pertain to end items in list.
D. Symbols
   1. A/P - activities done alone or with people.
   2. $ - activities that cost more than $3.
   3. 5 - activities you plan on doing five years from now.
   4. N5 - activities not on list five years ago.
   5. F - activities on father's list.
   6. M - activities on mother's list.
   7. X - activities done in last two weeks.
   8. Rank 1-5 the five things on the list that you like best.
E. Discussion - general.
F. Discussion variance difference between mother's and father's values.

Time: 30 minutes.

Title: Values Clarification

Objective: Students will explore their value system, identify its origin, access change patterns in an individual as well as a group setting.

Tools:
A. Twenty Things I Like to Do
(attached)
B. Voting Your Values
(attached)

Procedure:
A. Twenty Things I Like to Do
Procedure instructions on attachment
B. Voting Your Values
Procedure instructions on attachment

Time:
A. 30 minutes
B. 30 minutes

Title: Career Information

Objective: Students will compare various career and vocational choices and the requirements necessary to attain those choices by listing the educational requirements, experience, places of employment, and salary from the information available.

Tools: Career Cards from

A. Career Awareness Exploration Project
B. Dreams to Reality Kit
C. Toward Affective Development

Procedure:

A. Students are to choose at least two cards from the career card files. The task is to explore the education, training, wage scale, job projections and areas of related employment required for each career.

B. The game "Guess that Job" is then explained. One student has a "secret" career (i.e. police woman, child care, mechanic). Five or six students ask appropriate yes-no questions to try to guess the secret career. The secret is shared with the audience, in order to maintain their interest, but silence must be maintained. (Patterned after the game, "What's My Line".)

Appropriate questions are generated from the entire class before the game begins. Volunteers are used to fill the roles.

Time:

A. 20 minutes
B. 20 minutes

LESSON PLAN

Title: Prejudice

Objective: Students will identify prejudice statements and explore the consequences of such statements.

Tools: Fact or Prejudice worksheet

Prodecure: Students completed a prejudice sheet on an individual basis.

The classroom teacher divided students into groups of three so that discussion of the twenty-five items on the prejudice worksheet could take place. Students were reminded that each answer was their individual expression and the group work was for discussion to understand how others had answered. It was not necessarily a discussion to change others attitudes.

Each item was then discussed as a total group. Students were asked not only how they ranked each question, but also why they answered as they did.

An intermittent evaluation of where the students were at this point was made, regarding prejudice and sex role stereotyping. Example: Prejudice--question #15, Sex role stereotyping--question #7

Time: 45 minutes

FACT OR PREJUDICE?

INSTRUCTIONS: In the blank provided, write P if the statement is prejudiced; write NP if the statement is not prejudiced; and write CD if your group cannot decide.

_____ 1. She's the one who stole the candy. See the chocolate on her mouth?

_____ 2. He will flunk the test. He usually does.

_____ 3. He must really like to swim, he's on the swimming team and I see him at open swim every Wednesday and Saturday night.

_____ 4. She has blond hair and blue eyes. She's wearing a red dress.

_____ 5. He will win the election. He's the teacher's favorite.

_____ 6. Look at the way he dresses. He must be very poor.

_____ 7. On, she can't do it, she's only a girl.

_____ 8. He looks funny. He must be mental.

_____ 9. His hair is very curly, and he has black eyes. He's tall, too.

_____ 10. He must be a sissy, he likes to dance.

_____ 11. I know you'll like her. She's pretty.

_____ 12. That teacher is really strict. My friend told me she gives homework every night.

_____ 13. Of course he was cheating. His book was open, wasn't it?

_____ 14. He can really catch a ball. He has big hands.

_____ 15. She must be very sly. Look how her eyes are slanted.

_____ 16. She must be a brain, her father is a teacher.

_____ 17. I don't want to play with him. His skinis a different color.

_____ 18. She will probably lose the game for us. She's so slow.

_____ 19. Her eyes are crossed. She wears pigtails, too.

_____ 20. Don't play with her. She looks funny.

_____ 21. He wears glasses. He must be a good reader.

_____ 22. I can't stand it when I lose the game!

_____ 23. He's very tall and slim. 'He must be a fast runner.

_____ 24. On, don't choose him. He's too smart.

_____ 25. She said she doesn't want to play because she is tired.

Name_____

Jobs I Know

Grandmother_____

Grandfather_____

Grandmother_____

Grandfather_____

Mother _____

Sister _____

Brother _____

Aunt _____

Uncle _____

Aunt _____

Uncle _____

Neighbor _____

Neighbor _____

Father _____

Job I would like the most_____

Job I would hate the most_____

Name: _____

JOB DIFFERENCES

OCCUPATIONS	Indoor Work	Outdoor Work	Work with Hands	Work with Tools	Pencil & Paper	People
Plumber						
Electrician						
Janitor						
Teacher						
Store Manager						
Secretary						
Car Washer						
Engineer						
Car Salesman						
Doctor						
Computer Programmer						
Assembly Line Worker						
Sales Clerk						
Lawyer						
Airplane Pilot						
Telephone Repairman						
Farmer						
Lumberjack						
Author						
Beautician						
Bartender						
Architect						
Truck Driver						
Welder						

APPENDIX B-3

Lesson Plans-Grades 9 and 12
First Semester

Title: Word Usuage

Objective: Students will increase their awareness of the words: label, stereotyping, and role.

Tools: Paper and pencil

Procedure:

A. Paper is distributed
B. Directions:
   1. Students write down and describe the definitions:
      1. label
      2. stereotyping
      3. role
   2. Students will verbally share and discuss these definitions.
C. The following cues are used to facilitate discussion:
   1. What roles do you experience throughout one day?
   2. Is stereotyping constructive/destrictive?
D. Students are requested to complete worksheets
   1. Men Are:
   2. Women Are:
   3. Discussion follows exploring similarities and differences of worksheets

Time: 45 minutes

Title: Prejudice

Objective: Students will increase their awareness of 'prejudice', the historical perspective and also their interaction concerning this subject.

Tools:
A. Prejudice awareness worksheet
B. Film: Prejudice: Causes, Consequences, Cures

Procedure:
A. Prejudice awareness worksheet
   1. Explain to students that they will be given a 'psychological' test, but do not explain what that test will measure. Assure them, that this is a fun test. Inform them that they are to answer a series of questions, using the paper supplied and numbering them in the order given. Fold the paper in half lengthwise.

B. Answer yes, no, or uncertain to the following questions:
   1. Do you like cats?
   2. Do you like raw oysters?
   3. Do you like classical music?
   4. Would you like to live in Europe?
   5. Do you like to waltz?
   6. Would you like to know what is in this package I am holding? (Hold up a small box that you have previously placed an object that is either valuable or worthless and have wrapped either in a fancy way or in a careless way.)

C. Have the students turn their papers over and answer the following questions, yes or no:
   1. Have you ever owned a cat for more than a month?
   2. Have you ever eaten a raw oyster?
   3. Have you ever attended a symphony or listened to a complete recording of one?
   4. Have you ever been to Europe?
   5. Do you know how to waltz?
   6. Do you think there is something valuable in this package? (yes, no, or uncertain)

D. When they have written their answers, have the students unfold the paper so both sets of answers are visible. To score the test they are to use the following procedure:
   1. They get a zero if the second part of the question was answered no and the first part was answered either yes or no.
   2. They get one point if they answered the second part of the question yes and the first part was answered either yes or no.

3. They get two points if they answered the second part of the question no and answered the first part uncertain.
4. They get three points if they answered the second part of the question yes and the first part of the question uncertain.

Each pair of questions is scored in this way, except for the last question regarding the box. Regardless of how they answer the first part, they receive a zero if they answer either yes or no to the second part and three points if they answer uncertain.

E. Film is shown and time is allotted for discussion.

Time: 60 minutes

Title: Success and Strengths

Objective: Students will identify their strengths and begin accepting compliments and positive feedback regarding success.

Tools:
A. "Success Analysis" Worksheet
B. Pencils

Procedure:
A. Students are given the Success Analysis sheet.
B. The following instructions are given.
   1. Divide your life into three chapters. For example, places lived; preschool, elementary school or high school attended.
   2. For each"chapter" list four successes and give reasons why you consider these success.
   3. Complete the remaining sections.
C. After the students complete the Success Analysis, they are divided into two groups, each with a teacher/counselor as an active participant.
D. The Success Analysis Sheets are used as the basis for discussion by the two groups.

Time: Distributing and filling out Success Analysis sheet - 15 minutes.
Discussion - 30 minutes.

WORKSHEET

SUCCESS ANALYSIS

	List Successes	Reasons Why
CHAPTER 1	1. 2. 3. 4.	
CHAPTER 2	1. 2. 3. 4.	
CHAPTER 3	1. 2. 3. 4.	
	Most Successful Experience	
	One Success During the Past Week	
	Two Anticipated Successes in the Next Few Weeks: 1. 2.	

A successful experience for me involves: _____

_____

_____

Title: Time

Objective: The students will become aware of the fact that the future is here and now; determine the ramifications and recognize the value system of society as it applies to the individual.

Tool: A. Film: Future Shock
B. Discussion topics

1. Future consciousness - the ability to recognize that the future has already arrived.
2. Future and technology - accelerated change made possible by technology implies philosophical as well as sociological upheaval for man and society.
3. Future and society - as the pace of change speeds up, man's relationship to family, friends, community is increasingly temporary.
4. Future and ecology - vast ecosystems are out of balance and man is only vaguely concerned about the consequences.
5. Future and the individual - impermanence, overchoice, shattered structures, changes bombarding our minds and bodies result in alienation, anxiety and stress.
6. Future and values - if the consequences of rapid change are widely percurred and understood, if society recognizes the need to make choices.

Procedure: A. Preview film
B. Discussion topics

Time: A. Film - 43 minutes
B. Discussion topics - 20 minutes

Title: Personal Values

Objective: Students will identify their personal values.

Tools:
A. Paper and pencil
B. Twenty Things worksheet
C. Code

Procedure:
A. Directions are given to students to write twenty things they like to do, with no regard to order.
B. Students are instructed to mark their lists with the following code:
   1. A/P - Put an A for activities done alone, P for activities done with people.
   2. $5 - Check each activity that costs more than $5
   3. Pub - Check each activity you would be willing to declare publicly
   4. 5 years - Check those things you plan to do 5 years from now
   5. N 5 years - Check those things that would not have been on your list 5 years ago
   6. F - Check those things your father would put on his list
   7. M - Check those things your mother would put on her list
   8. Rank - 1-5, the five things you like the best
C. Students are instructed to complete the following sentences:
   1. I learned that _____.
   2. I was surprised that _____.
D. Discussion follows.
E. Students are instructed to write down three things they want most out of life and then to write down a recent action related to each thing listed.
F. Discussion follows.
G. Students are instructed to make and fill in "time pies."
H. Discussion cues:
   1. How do you spend a typical day?
   2. What things do you value most in your pie?
   3. How can you restructure your day to make that slice of your pie bigger?
I. Students are instructed to re-do pies.
J. Discussion.

Time: 45 minutes

Title: Values and Career Choices

Objectives: Students will explore their individual value system and relate this to their career goals.

Tools:
A. Worksheet, 'Considering Success'
B. Worksheet, 'Considering Careers'
C. Pencils

Procedure:
A. The class is divided into two groups, each having a teacher/counselor as facilitator.
B. The worksheet 'Considering Success' is distributed and filled out individually.
C. Each student then shares her/his least important item and most important item, within the small group.
D. The worksheet 'Considering Careers' is distributed and filled out individually.
E. Each student then shares her/his least important and most important item, within the small group.
F. Convene to large group and discuss events.

Time:
A. Considering Success - 25 minutes
B. Considering Careers - 25 minutes
C. Group Discussion - 15 minutes

CONSIDERING CAREERS

What's important to you about working? There are many things to consider. Look over the list below and rank the items; 1 - most important, 2 - least important.

_____ a high salary

_____ being independent

_____ ability to be creative

_____ freedom to do what you want, more or less

_____ security - or knowing that the job will be permanent

_____ good vacations and plenty of time off

_____ excellent medical, retirement or savings benefits

_____ pleasant surroundings - nice office, convenient location

_____ friendly and cooperative co-workers

_____ power or status

_____ a chance to travel

_____ an opportunity to help people

_____ regular working hours

_____ a chance for advancement

_____ a chance to learn new skills

How would you rate your own skills? Mark an x along the line which represents where you think you are...where you rate.

	POOR	PRETTY GOOD	EXCELLENT
Getting along with other people			
Following directions			
Thinking of new ideas			
Creative writing			
Public speaking			
Planning projects and getting work done			
Organizing for efficiency			

List 3 or 4 careers you've heard about which you think are interesting.

1.
2.
3.
4.

CONSIDERING SUCCESS

What's important to you about success? What qualities are important to you about success?

Look over the list below and rank all these items. 1 - being most important, 16 - being least important

_____ Financial rewards

_____ Independence/Freedom

_____ Being different

_____ Doing something better than someone else

_____ Achievement - accomplishing what I set out to do

_____ Being on my own

_____ Doing the best that I can

_____ Self discipline

_____ Having power

_____ Keeping an open mind

_____ Having responsibility

_____ Receiving a blue ribbon, metal or trophy

_____ Having fun at what I do

_____ Being brave

_____ Receiving praise and recognition

_____ Having authority

Title: Role Model Team Presentation

Objective: Students will be exposed to Role Model teams in non traditional career and questions will be generated concerning the aspects of the varied careers.

Tools: Two Role Model team members

Procedure:

A. Introduction of Role Model Team members.
B. Individual Role Model member gives brief outline of career.
C. Students will be given opportunity to guess career choice of Role Model--based on "What's My Line"
D. Role Model will go into further depth in regard to life style and career choice.
E. Time was given for further discussion

Time: 60 minutes

LESSON PLAN

Title: Men are/ Women are

Objective: Students will express their individual feelings concerning male and female characteristics.

Tools:
A. Worksheet--Men Are/Women Are
B. Role Reversal Fantasy
C. Pencil

Procedure:
A. Directions of worksheet
B. Role Reversal Fantasy

I would like you to relax, get as comfortable in your chair as possible. Concentrate on your breathing. (30 seconds) If you become distracted by outside noise always come back to your breathing. Relax. Now, I want you to get an image in your mind of who you, as an individual would be like ten years from now.

Close your eyes. Relax. Concentrate on your breathing.

Think of yourself ten years from now. Imagine for a minute where you'll be and what you will be doing.

Where are you living? In the country? In the city? In the mountains?

Are you married? Do you have children? Did you choose not to have children? Are you single?

What kind of shelter do you have? A house? An apartment? What does it look like?

What do you do for a living? Do you spend a lot of time at work? What is your occupation or career? Will you be into this career for your life span or do you plan to change careers?

How do you spend your free time? What kind of hobbies do you enjoy? Do you enjoy doing them alone or with others?

What kind of recreational activities do you enjoy doing? Do you do them alone or with small or large groups?

Now fantasize being a member of the opposite sex.

What would your hair look like? Would it be long or short? What color?
What does your body look like? Tall? Short?
What kind of clothes are you wearing? How are you dressed?
When you walk, do you walk differently? Long strides, or short, what are your arms doing as you walk?
What do your facial features look like?
When you sit in a chair are you slumped forward, or upright?

Imagine waking up in the morning. What clothes do you put on? Are you more or less concerned with your appearance? How do you react with your parents and how do they react with you?
On your way to school, who do you walk with and what kind of things do you talk about? What kinds of things do you do differenetly? What things do you do at lunch time?
After school what kinds of things do you do? Athletics? Debate? Drama?
Now, you can relax and be yourself once again.
Discussion

Time: A. Worksheet 20 minutes
B. Role Reversal 15 minutes

Women Are:

Affectionate	Competent	Receptionists
Supportive	Presidents	Understanding
Ambitious	Competitive	Able to show emotions
Gentle	Aggressive	Assertive
Self-confident	Adventurous	Flexible
Decisive	Sensitive	Sensible
Leaders	Carpenters	Honest
Powerful	Capable of raising children	Nurturing
Athletic	Independent	
Nurses	Fashion Conscious	

DIRECTIONS:

A. Select 5 traits you think most appropriately complete the phrase "men are" and write them in column 1 (substitute other traits if wish).
B. In column 2 write 10 traits selected by your group.

Individual Preference	Group Preference
1._____	1._____
2._____	2._____
3._____	3._____
4._____	4._____
5._____	5._____
	6._____
	7._____
	8._____
	9._____
	10._____

MEN ARE:

Affectionate	Competent	Receptionists
Supportive	Presidents	Understanding
Ambitious	Competitive	Able to show emotions
Gentle	Aggressive	Assertive
Self-confident	Adventurous	Flexible
Decisive	Sensitive	Sensible
Leaders	Carpenters	Honest
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DIRECTIONS:

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Individual Preference	Group Preference
1._____	1._____
2._____	2._____
3._____	3._____
4._____	4._____
5._____	5._____
	6._____
	7._____
	8._____
	9._____
	10._____

Title: Career Information

Objective: Students will explore various career and vocational options.

Tools:
Paper
Pencils
Envelopes

Information sources:

Catalyst
Career options Series
14 E. 60th Street
New York, NY 10022

Occupational Outlook Handbook
U.S. Department of Labor
Bureau of Labor Statistics

Program Department
Girl Scouts of the U.S.A.
830 Third Avenue
New York, NY 10022

Procedure:

A. Counselor/teachers bring into the classroom resource information and hand out career lists.
B. Students are requested to examine the material and mark two careers of interest on the lists.
C. Students are asked to "research" each career checked, using available resource materials.
D. Students are instructed to write information collected and to include:
   1. Why/what interest in the career?
   2. What education/training necessary?
   3. Salary range?
   4. Localities/employment possibilities?

Time: 50 minutes

Title: Value Systems and Self Defeating Behavior

Objective: Students will recognize the value systems of others and also recognize self defeating behavior.

Tools: Paper and pencils
Film: Pack Your Own Chute

Procedure:
A. Worksheet is to be divided into 5 columns. Complete the following tasks:
   1. First column: List the ten people who are close to you.
   2. Second column: Write the gift that you gave that person last Christmas.
   3. Third column: List an intangible gift you could give to each person that would dramatically change some aspect of that persons behavior, for example, being able to listen better.
   4. Fourth column: List some tangible gift you could give each person that would help him/her achieve the behavior change that you listed in the third column.
   5. Fifth column: List a gift that each of these people could give you to change one or more of your behavior patterns.
B. Preview film and discussion.

Time:
A. 15 minutes
B. 30 minutes

A P P E N D I X B - 4

Lesson Plans-Grades 9 and 12
Second Semester

Second Semester

Title: Introduction of Project REVERSE

Objective: Students will be introduced to the project, objective statements, lesson plans and facilitation.

Tools:

A. Outline of Lesson Plans

1. Introduction of Project/Administer Pre-Test Survey
2. Time
3. Values
4. Historical Perspective/Sex Role Development
5. Decision Making
6. Vocational Educational Information
7. Media Week
8. Role Model Presentation
9. Vocational Educational Information
10. Role Model Presentation
11. Vocational Educational Information
12. Sex Role Stereotyping/Text Books
13. Summary/Administer Post-Test

B. Test Instrument

Procedure:

A. Explanation and Discussion of Lesson Plans
B. Administered Test Instrument
Instructions on Instrument

Time:

A. 30 Minutes
B. 30 Minutes

Title: Time

Objective: The students will become aware of the fact that the future is here and now; determine the ramifications and recognize the value system of society as it applies to the individual.

Tool:

A. Film: Future Shock
B. Discussion Topics

1. Future Consciousness - The ability to recognize that the future has already arrived.
2. Future and Technology - Accelerated change made possible by technology implies philosophical as well as sociological upheaval for man and society.
3. Future and Society - As the pace of change speeds up, man's relationship to family, friends, community is increasingly temporary.
4. Future and Ecology - Vast ecosystems are out of balance and man is only vaguely concerned about the consequences.
5. Future and the Individual - Impermanence, overchoice, shattered structures, changes bombarding our minds and bodies result in alienation, anxiety and stress.
6. Future and Values - If the consequences of rapid change are widely percurred and understood, if society recognizes the need to make choices.

Procedure:

A. Preview Film
B. Discussion Topics

Time:

A. Film - 43 Minutes
B. Discussion Topics - 20 Minutes

Title: Values Clarification

Objective: Students will explore their value system, identify its origin, access change patterns in an individual as well as a group setting.

Tools:
A. Twenty Things I Like to Do (attached)
B. Voting Your Values (attached)

Procedure:
A. Twenty Things I Like to Do - Procedure instructions on attachment
B. Voting Your Values - Procedure instructions on attachment

Time:
A. 30 Minutes
B. 30 Minutes

VOTING YOUR VALUES WORKSHEET

Objective: To enable students to take a public position on a variety of issues and discover the range of diversity regarding value questions that exists in their class.

Procedure: Students will vote by behavioral signals at the mention of various items and issues. A follow up discussion allows them to analyze how it affected them to clarify their values in this manner to themselves and to others.

Explain to the students that you will be asking a series of questions about a variety of issues and everyone will be voting on these questions all at once without talking.

Tools: A. Voting Procedure

VOTE	BEHAVIOR
1. Strongly Agree.	.Hands held high above head
2. Agree.	Hands held at shoulder or head height
3. "I don't know" or "pass" . . .	Arms folded across chest
4. Disagree	Thumbs turned down
5. Strongly Disagree	.Thumbs turned down with arms extended as low as possible

B. Voting Sentences

1. "How many of you . . .
2. Had a good day yesterday?"
3. Needed an extra day for last weekend?"
4. Had a good laugh today?"
5. Would like to try hand-gliding. . .skydiving. . . scubadiving?"
6. Want to change something at this school?"
7. Like yogurt. . .humburgers. . . ice cream. . . school. . . liver?"
8. Think grades are a good way to tell what a person has learned from a class?"
9. Think of yourself as a happy person. . .good student?"
10. Think it is okay for girls and women to cry. . . boys and men?"
11. Have a private place you like to go when you want to be alone?"

C. Unfinished Sentences

1. "I learned . . . "
2. "I was surprised to find out . . ."
3. "I discovered . . ."
4. "I was delighted to find out . . ."
5. "I was (pleased/displeased) that . . ."
6. "A person participating in this activity is likely to conclude . . ."
7. "I see that I need to . . ."

D. Discussion Questions

1. "What did this session mean to you?"
2. "What do you think the group learned from this?"
3. "What does this tell us about ourselves?"

Junior High Interchange
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TWENTY THINGS I LIKE TO DO

Procedure:

A. Students instructed to list 20 items of things they like to do
B. Facilitator will read list of symbols
C. Student will mark items that pertain to end items in list
D. Symbols

1. A/P - Activities done alone or with people
2. $ - Activities that cost more than $3
3. 5 - Activities you plan on doing five years from now
4. N5 - Activities not on list five years ago
5. F - Activities on father's list
6. M - Activities on mothers list
7. X - Activities done in last two weeks
8. Rank 1-5 the five things on the list that you like best

E. Discussion - General
F. Discussion variance difference between mother's and father's values

Time: 30 Minutes

Title: Historical Perspective, Sex Role Development

Objective: Student will acquire an accurate historical perspective; recognition of socialization process and alternatives to sex role stereotyping.

Tools:
A. Film: Sex Role Development
B. Worksheet "Do Sex Role Expectations Exist?" (attached)

Procedure:
A. Film Preview - Sex Role Development
B. Administer worksheet
C. Group discussion

Time:
A. 23 Minutes
B. 10 Minutes
C. 30 Minutes

NAME_____

1. Discuss examples of ways that sex-role stereotypes influence our perceptions and attitudes toward ourselves and others?

2. What aspects (if any) of sex-role stereotypes do you believe are accurate?

3. What ways have sex-role stereotypes influenced the course of your life?

4. What role do you think the media has played in creating and perpetuating sex-role stereotyping?

5. What is the concept of androgyny?

6. What steps can society take to change traditional sex roles and to reduce current sex-role stereotypes?

*Film: Sex-Role Development

Title: Decision Making

Objective: Students will acquire problem solving skills that are needed in the decision making process, on an individual, as well as group basis.

Tool: Sub-Arctic Survival

Procedure: Attached

Time: 60 Minutes

Title: Vocational Educational Information

Objective: Students will be exposed to vocational educational information and non-traditional career information.

Tools: Film: Anything You Want To Be

Procedure:
A. Preview film - 42 minutes
B. Discussion in regard to film's message

Time: 60 Minutes

Title: Media Week

Objective: Students will become aware of and familiar with media's influence and messages, both blatant and subliminal in regard to sex role stereotyping.

Tools:
Filmstrip: Tear Open the Boxes - 11 minutes
Toys
Books
Advertising
Album Covers
Filmstrip: Cinderella is Dead

Procedure: Facilitators demonstrate with the aid of material (listed under tools) ways and means that stereotypes are established and perpetrated.

Time: 60 Minutes

Title: Role Model Presentation

Objective: Students will be exposed to Role Model teams which intend continual support and information toward non-traditional career options.

Tools: Two Role Model team members

Procedure:
A. Introduction of Role Model team members.
B. Individual Role Model team member gives brief outline of career.
C. Students will be given opportunity to guess career choice of Role Model - based on "What's My Line".
D. Role Model will go into further depth in regard to life style and career choice.

Time: 60 Minutes

ROLE MODEL TEAM FORMAT

I. Introduction of Program

A. Coordinator of Role Model team
B. Explanation of Role Model team
C. Purpose of Role Model team
D. History of Role Model team

II. Classroom Format

A. Role Models present brief description of their careers - based on program, "What's My Line".
B. Students guess occupation of Role Model based on information that has been presented to them.
C. Once the occupation has been guessed, the Role Model goes into depth as to what their/her/his life style has been. This may include childhood, family background, youth, career choices, schooling, financial situations, changes, if any, in life time career choices and information concerning present occupation.

Title: Vocational Educational/Occupational Information

Objective: Students will be exposed to vocational educational and occupational information.

Tools:

A. Paper and envelopes
B. Vocational Educational and Occupational information

1. Catalyst Career
   Career Options Series
   14 E. 60th Street
   New York, NY 10022

2. Occupational Outlook Handbook
   U.S. Department of Labor
   Bureau of Labor Statistics

3. Program Department
   Girl Scouts of the U.S.A.
   830 Third Avenue
   New York, NY 10022

4. Northern Michigan University
   Skills Center
   Marquette, MI 49855

5. The National Apprenticeship Program
   U.S. Department of Labor
   Employment and Training Administration
   Washington, D.C. 20402

6. Brochures covering over 50 apprenticeship and training areas

Procedure:

A. Vocational educational and occupational information will be displayed
B. Students will choose two career information cards
C. Students will write two letters of inquiry in regard to career information

Time: 60 Minutes

Title: Vocational Educational Information

Objective: Students will be exposed to information pertaining to school vocational educational classes and union apprenticeship programs.

Tools:
A. Film: Apprenticeship
B. Speakers

Procedure:
A. Preview Film
B. Presentation by Vocational Counselors of school system
C. Presentation by Union Business Agents
D. Presentation by Union Apprenticeship Coordinator

Time: 60 Minutes

Title: Sex Role Stereotyping - Text Books

Objective: Students will be exposed to practices that address sex role stereotyping, presentation takes into account school text books, their contents and demonstrates the messages that prevail.

Tools: Slide presentation: Images of Males and Females in Elementary Textbooks

Procedure:
A. Preview film
B. Discussion

Time: 60 Minutes

APPENDIX C

DESCRIPTION OF ROLE MODEL TEAMS

WHAT IS THE ROLE MODEL TEAM PROJECT?

The role model teams are made up of men and women of all ages, and all economic backgrounds, with varying kinds of careers and life styles. These people speak about themselves and their jobs, to people of all ages in community schools, elementary, junior and high schools and other groups. Among the current list of local Role Model Team volunteers, there are women in the following occupations:

- Realtor
- Bank Manager
- Bank Loan Officer
- Telephone Installer
- TV Newscaster
- TV Producer
- Aviator
- Computer Programmer
- Administrator of local Social Agency
- Elected Officials on the city, county and township levels
- Assistant Dean of Students at the University
- Anthoropologist
- Scuba Diver
- Sculptor
- Hospital Chaplain
- Blacksmith-horseshoer
- Meat Cutter
- Truck Driver
- Welder
- Carpenter
- Waste Water Treatment Graduate
- TV Repair Person
- Radio Producer
- Business Owners
- Conservation Person
- Audiologist
- Police Officer
- Psychologist
- Professor of Accounting and Finance
- Attorney
- IBM - employee, repairs small office equipment
- Chemist
- Laboror for the State Deparment of Natural Resources
- Women in business

As well as men breaking into the more traditional women job roles of:

- Nursing
- House-husbands
- Telephone Operators
- Single Fathers

In a short 15 minute presentation, these people explain not only what they do in their jobs, but how they received their training and/or experience, what the opportunities are in their fields, and how their jobs affect their life styles and their relationships with others. A question and answer period follows. The teams are usually comprised of three or four men and women from different jobs or life styles, or a combination of both. Some life styles that are represented include:

- Divorced
- Widowed
- Single Parent
- Single, Contractual Living
- Working Couples

The impact is considerable when the audience can view and discuss with local men and women who are holding jobs and living particular life styles. The Role Model Teams open new possibilities for all men and women, in their own lives, and encourages them to think of themselves and their futures in new ways. This is equally true for all women and men of all ages.

APPENDIX D

TEACHER AND STUDENT EVALUATIONS

STUDENT EVALUATIONS

Parkview Second Semester, Fifth Grade

Likes:

1. The guessing the job games, role playing, slides of themselves. "I like the idea because it shows you can do anything you want to do." "When we took pictures and acted out jobs and played that game when you tried to guess each others careers."
2. When you brought people in to guess their careers.
3. Football, corvets, crank phone calls.
4. I like the program it was fun.
5. I liked it when we took pictures and acted out jobs and played that game when you tried to guess a career and not to be male chauvinist pigs!
6. Films were good.
7. It was fun and they proved to me that women can do jobs as good as men.

Dislikes:

1. The tests were boring.
2. Doing the surveys.
3. The slide shows weren't very good.
4. I didn't like it when you always picked the girls.
5. Waiting.
6. I especially didn't like it when boys were saying girls are clumsy.

General Comments:

"Have some other stuff besides sheets and slides."
"It was pretty good."
"I don't like general comments."
"It was fun."

Big Bay Second Semester, Fifth and Sixth Grades

Likes:

1. The skits, when they played, "Guess that career?" The slides of themselves in role-playing different careers. "Bill Keithler".

2. Fishing, baseball.

3. Just about everything, especially the play-acting and guess that career.

4. I liked the guessing game, the surveys, the movies and slides. I can't think of anything else, but I liked it a lot.

5. I liked it when you brought people in I liked everything you did here this year.

Dislikes:

1. Survey (it was kind of long) and what you think other people think of you.

2. "When we had to hold onto the scarf and talk".

3. "I didn't like it at the beginning of the year when we took all them stupid tests!"

4. "JoAnn Sharkey".

5. I don't like to make something with paper.

6. Not them tests.

General Comments:

"I like you people a lot because you are very friendly and always nice and you don't lose your tempers."
"It was nice when you brought your camera."
"It was nice having you here."
"I liked almost everything you did."
"I think it was a good class for kids."
"Thanks for coming this year, I had a lot of fun."
"I hope you come next year."

Marquette High School Second Semester, Ninth Grade

Likes:

1. Interesting.
2. I liked everything we did.
3. It helped me to choose and look at different careers.
4. It pointed out a lot of job ideas I would never have thought of.
5. Film: Future Shock.
6. Role Models.
7. None.
8. You told me not to be prejudice about different sexes.
9. I can start my career in high school.
10. Expand your organization and show more people what's happening.

Dislikes:

1. I didn't like it when you showed all those slides, you can get a little sore when you sit for 50 minutes.
2. Surveys.
3. All.
4. I think you should go more with the male point of view.
5. Too many subject repeats.
6. I thought this class was useless cuz I already new most of the stuff.

General Comments:

"Take the program to Junior High."
"It got people thinking that babies and people shouldn't be labeled like a can as to what's inside."
"It was interesting to look at the outer world."
"None."
"Women ain't as strong as men and there ain't no way they can do all the work men do"
"You don't see men's centers trying to do what women do."
"Teach it to the younger generation. It will help them grow up a little more free!"
"Made us aware of discrimination."

Gwinn Second Semester, Ninth Grade

Likes:

1. Role Models.
2. I really am not going to become a welder or anything. But you help me in seeing what's available.
3. Able to say what you wanted and felt.
4. Liked when we talked about career education and the vocational apprenticeship program.
5. It (class) taught also that boys could do just as well do girls jobs.
6. It showed that you don't have to be a girl for a girls job.

Dislikes:

1. Sub-Artic Survival.
2. Coming in and bragging about Women's Lib.
3. Some of the material was old and out-dated.
4. You came in only one day a week.

General Comments:

"More role models."
"I wish it could have started at the beginning of the year."
"Glad you came in and talked about womens jobs."
"It (class) has opened my eyes to the more subtle and restrictive stereotypes we hang on people."

Marquette High School Second Semester, Twelfth Grade

Likes:

1. Goal preparation.
2. You brought out some things on discrimination I didn't know about.
3. Getting one free hour every week.
4. Role Models.
5. I knew that some discrimination existed, but not as much as it really does.

Dislikes:

1. Terribly boring.
2. Your course talks too much about women.
3. One sided. (women's issues)
4. Better intorduction.

General Comments:

"The point that women have other options was the only thing."
"The way you's came in here, male and female."

Westwood Second Semester, Twelfth Grade

Likes:

1. I liked the exposure to different jobs and careers.
2. It was a different and interesting format.
3. People are doing what they really want to do and do best.
4. People from different jobs coming in and talking to the class.
5. Future Shock.

Dislikes:

1. I felt you were pushing your opinions of women's lib on us.
2. Some of the movies weren't that interesting.
3. I didn't enjoy when you had the nurse come in--I guess I really wasn't ready to accept it--I thought that he was interesting in what his work was and that.
4. I didn't like the way men were kind of always cut down because the women were not getting the same genefits.

General Comments:

"I think it was worth while."
"Younger students could benefit greater, from this kind of project."
"I think differently now because I have some idea of what it's all about and what's happening! Before, well I heard what was happening but never paid any attention to it!"

Marquette High School First Semester, Twelfth Grade

Likes:

1. I think it's about time we had some basic understanding that women are people, have jobs and their own biases too.

2. It did provide a break from the traditional learning process.

3. We all have prejudices and I think that realizing the prejudices will help to either eliminate them or at least control them.

Dislikes:

1. Some of the areas that they covered, I feel are a little too personal.

2. I would like to know what they're going to use it for, I resent being a guinea pig.

3. 99.97% of us are fed up with the same old "Who am I" type workshops.

4. Boring.

General Comments:

"It would be good if some of the younger kids learned some of this stuff."
"I thoroughly enjoyed the 2 people (role models) coming in and telling us their lives. Possibly more in this line should be used--include people that are prejudiced against--perhaps the unstereotype such as male nurses, etc."

Project REVERSE
Teacher Evaluation
Summary

1. In your estimation has the project met its goals?

-To a limited extent.
-Yes, I believe it has.
-Not totally, the students still did not know what the idea was behind the program.
-Yes, with the qualifier that although I feel changes have occurred for the positive for some students as a result of REVERSE activity, the changes are by no means universal nor generally dramatic.
-I feel I cannot accurately estimate how well the project met its goals because they were somewhat unclear. Specific goals were not really covered with me and consequently I only have a vague idea.
-Yes.
-Yes.

2. What, if anything, do you feel students gained from the project?

-Exposure to alternative life styles, career choices and a broader perspective. Access to materials I don't have and have not been aware of.
-I feel they gained the opportunity to examine roles in a non-threatening way and to see successful people in non-traditional ways.
-I think they realize more of their fixed ideas on such things as jobs.
-The project offered support to students who are considering entering non-traditional occupational fields for their gender.
-Initially I felt the students reacted quite negatively to the team coming into our classroom. Later I realized a general acceptance of the team so I feel they at least gained an ability to accept outsiders into the classroom.
-I think they gained a greater awareness of job possibilities. An increase of vocabulary has been shown. Growth in the ability to formulate and ask questions is obvious.
-To try a job that is thought of as not "being" for them.

3. How would you rate the effectiveness of:

a. Materials

-Excellent films; good choice of material.
-Good.
-More printed material ready to be used.
-Although many of the materials were quite good, many, if not most, I have already used in various forms with the students involved in the REVERSE project.
-I felt the materials brought into the classroom were quite good. Movies were also a big plus in supplementing the materials.

a. Materials (continued)

-Good variety.
-Good.

b. Teaching approach

-Good; varied.
-Very good. I particularly liked the sharing by both male-female, Bill and JoAnn.
-Good.
-Good. Generally compatable with the materials used.
-It was very difficult to determine because of the limited exposure and time allotted each week. I feel the biggest problem here was individual personality - a more friendly and open approach to the students would help a great deal. There was a distance that never really broke down for one reason or another.
-Good. Lots of student involvement.

c. Staff performance

-Well planned.
-Very good. Bill and JoAnn seemed comfortable in working together and I felt at ease with them. I think the class was aware of this also.
-Good.
-Good.
-I felt on a whole the staff perform quite well. They were organized and understanding of the problems with getting rooms available on short notice.
-Excellent. Good example within the classroom for student modeling.
-Good.

4. Which of the activities and materials do you feel were:

a. Strong

-Films; self-evaluation assignments.
-Role model teams were discussed later by students, as were the filmstrips, slides, and materials on advertising and how books teach roles.
-Films; activities.
-Career cards.
-The people brought in from various occupations was the most impressive aspect I found. Also the unit on textbook studies was interesting and allowed students to get involved with it. Follow-up discussion went very well after they viewed this series.
-The role playing activities; slides of their own activities; interviews or various visitors brought in.
-Activities, speakers talking about their job.

b. Needed improvement

-The first semester needed more direction.
-An abbreviated version of the Sex Role Development film would be an improvement, simply because of its length. Although Mr. Mitchell had a great deal of information on apprenticeship programs, I think he may have discouraged females in applying.
-More checklists, questions on paper, etc.
-Role model team presentations.
-A more structured discussion following the movies would help out. The students were unsure most of the time why the movies were shown, i.e., Future Shock.
-(Left blank)
-Better discussion of the longer films. Have questions on paper for them to answer.

5. Do you think that the time allotment (One classroom period per week) was the best method of accomplishing project objectives? If not, what changes would you suggest?

-No change. Could be an alternative, two-week unit-type thing.
-It's hard for me to answer this. I feel it was effective in class because the material was brought up at different times through the literature we read. (We often discussed the roles of the characters.) I think students need to be made aware of how roles affect everyday life.
-For you, more classes would be better. For me, it would take too much time out of my program.
-No, I believe a much better approach to accomplish the goals of this project would have been to "teach" the individual lessons as a total unit over consecutive days.
-One class period wasn't enough. There needs to be a few sessions planned prior to the start of the program to get acquainted with the instructors. The students will be more responsive if they feel they know something about the teachers.
-It appeared to be adequate.
-For you, it would be better to have it 15 days straight but it would hurt us as teachers.

6. Do you feel that you were included as an integral part of the project?

-Yes.
-Yes, I felt comfortable in contributing to the discussions and feedback was often checked out by Bill or JoAnn.
-No, but that was more my fault.
-As much as I desired, yes.
-My role was never really explained to me as such. Consequently it is difficult to determine if I should have been an integral part of the project.
-I felt a part of the project as I was always in attendance and was able to have input into an activity.
-As much as possible.

7. Did you gain anything from the project?

-Yes, new ideas.
-I gained some new resources, as well as an opportunity to see the class grow in its awareness of sex roles! (Students would talk about traditional sex roles as they saw these roles in their homes, in marriages, and other classes.)
-Realized my biases?
-Yes.
-I gained an awareness that most of my students are in total disbelief of role stereotypes, etc.
-Yes, for one thing I am a lot more critical when I look at textbooks and materials which are to be used with students.
-More understanding for people who are doing something that "we" think is different.

8. Have you discussed the project with other teachers, counselors, or administrators?

-Yes.
-Yes, I have. However, I have not had an administrator ask me about the project.
-A few.
-Yes.
-I have discussed the project with one other teacher involved with the project.
-Yes.
-Briefly with a few other teachers.

9. Do you feel you will incorporate some of the ideas and attitudes of the project into your teaching in the future?

-Yes.
-Yes, absolutely!
-Yes.
-I feel that many, if not most, of the ideas and attitudes have, previous to my association with REVERSE, been included into my teaching.
-I would like to take a look at our textbooks and also attempt to incorporate a unit on women in politics later on in the year.
-Yes. Future plans include visits by various people with a follow-up study of that occupation and any related occupations.
-Yes. I have even done some of it this year.

10. If the project were to be continued would you want your class to participate again? If not, why not?

-Yes, but it does put a strain on the class trying to make up their lost time.
-Yes, I feel it takes a great deal of time to grow "into awareness" and as they would learn more, the students could apply the information to other parts of their lives.
-Not the same classes. Could be beneficial to others.
-Yes.

-Yes.
-Yes, I feel the students have benefited greatly in having (non-Big Bay) people from outside the community coming into their classroom. Their general exposure is more limited than the large city schools.
-No. It disrupts the rest of my classes.

11. Any additional comments?

-I feel fortunate to have been selected to participate in project REVERSE. I know, as a whole, the class felt this way too. They were eager to do something to show their appreciation to both Bill and JoAnn.
-I do feel most teachers (at least I know I do) incorporate the ideas taught in this study in their classes and in their private dealing with students. I don't find the average high school student to be as limited as they were in past years. Therefore, I expect the results to be limited.
-At times I felt an incompatibility between the two instructors. This led to breakdown in communication between the two and I was given very little advance notice on what was going to happen in the classroom, i.e., different room assignment or additional equipment needed for their presentations. This feeling of acting independently annoyed me, but I did not observe this in my class.
-I would advise you to use one of the two single health classes. It would be much easier to disrupt one class than my five.

APPENDIX E

INDIVIDUAL STUDENT DATA

Individual Student Data

Student Number-Coded*	ATTITUDE SCORES			INFORMATION SCORES		
	Pre-treatment Measure A	Post-treatment Measure B	Difference Score	Pre-treatment Measure A	Post-treatment Measure B	Difference Score
11101	3.22	3.46	-0.24	03	05	02
11102	3.51	3.60	-0.09	10	05	-05
11103	3.51	3.43	0.08	04	04	00
11104	2.77	3.23	-0.46	08	07	-01
11105	3.80	3.53	0.27	03	03	00
11106	3.89	3.86	0.03	04	05	01
11107	3.63	3.77	-0.14	07	02	-05
11108	3.49	3.27	0.22	04	10	06
11109	3.06	2.66	0.40	06	08	02
11111	3.37	3.29	0.06	08	06	-02
11112	3.34	3.47	-0.13	05	02	-03
11113	4.46	4.14	0.32	07	05	-02
11150	3.66	3.68	-0.02	04	03	-01
11151	3.77	3.79	-0.02	04	02	-02
11152	3.60	3.89	-0.29	05	06	01
11153	3.69	3.66	0.03	06	06	00
11154	3.97	4.06	-0.09	03	04	01
11155	3.51	3.54	-0.03	05	07	02
11157	4.17	3.74	0.43	05	01	-04
11158	3.54	3.00	0.54	07	10	03
11160	3.94	3.49	0.45	07	03	-04
11202	3.51	3.30	0.21	03	04	01
11203	3.51	3.37	0.14	06	06	00
11204	3.57	3.34	0.23	06	10	04
11207	3.46	3.06	0.40	08	04	-04
11208	2.97	3.23	-0.26	08	05	-03
11210	3.26	3.26	0.00	06	07	01
11253	4.11	4.06	0.05	05	04	01
11254	3.37	3.37	0.00	07	05	-02

*01 to 49 = male, 50-99 = female; 100 = urban, 200 = rural; 1000 = experimental treatment group, 2000 = control group; 10,000 = fifth grade, 20,000 = ninth grade, 30,000 = twelfth grade.

11255	3.66	3.37	0.29	05	06	01
11256	2.71	3.34	-0.63	07	07	00
11258	3.80	3.43	0.37	06	02	-04
11259	3.66	3.46	0.20	07	07	00
11260	2.89	3.46	-0.57	09	06	-03
12101	1.97	2.11	-0.14	13	09	-04
12104	2.29	2.43	-0.14	14	14	00
12105	2.54	2.40	0.14	12	11	-01
12106	2.34	2.31	0.03	10	10	00
12107	2.86	3.34	-0.48	04	04	00
12108	3.91	3.97	-0.06	04	05	01
12150	2.74	3.26	-0.52	08	03	-05
12151	3.23	3.31	-0.08	06	03	-03
12152	3.74	3.91	-0.17	05	03	-02
12153	3.00	2.77	0.23	.2	08	-04
12154	3.03	2.77	0.29	08	10	02
12156	4.34	3.97	0.37	03	05	02
12157	3.77	3.49	0.28	03	03	00
12158	3.11	3.14	0.03	06	05	-01
12201	3.83	3.94	-0.11	05	04	-01
12202	2.80	3.14	-0.34	05	11	06
12203	3.06	3.17	-0.11	07	06	-01
12205	[illegible]	3.57	-0.48	05	06	01
12206	[illegible]	3.00	0.53	09	09	00
12250	3.40	3.40	0.00	07	04	-03
12251	3.30	3.91	-0.61	03	03	00
12252	3.81	3.91	-0.10	03	04	01
12254	3.74	3.26	0.48	07	05	-02
12255	3.26	3.34	-0.08	06	05	-01
12257	3.68	3.71	-0.03	09	05	-04
12258	3.28	3.38	-0.10	08	05	-03
12260	3.06	3.40	-0.34	09	06	-03
22101	3.26	3.23	0.03	08	13	05
22102	3.00	2.89	0.11	10	10	00
22103	2.57	3.03	-0.46	10	07	-03
22104	3.66	3.43	0.23	05	06	01
22105	3.29	3.40	-0.11	09	06	-03
22106	3.20	3.06	0.14	05	05	00
22107	3.80	3.86	-0.06	03	04	01
22151	3.94	3.86	0.08	05	08	03
22152	3.69	3.69	0.00	05	07	02
22153	3.29	3.51	-0.22	07	06	-01
22154	3.91	3.77	0.14	05	03	-02
22155	3.71	3.71	0.00	02	02	00
22157	3.77	4.26	-0.49	02	05	03
22158	4.11	4.18	-0.07	08	05	-03
22159	3.83	3.51	0.32	00	02	02
22160	3.71	3.54	0.17	05	02	-03
22161	4.23	4.23	0.00	02	04	02

22163	4.51	4.23	0.28	05	05	00
22164	4.03	4.20	-0.17	06	04	-02
22165	4.20	4.11	0.09	03	04	01
22166	4.03	3.66	0.37	05	06	01
22167	3.91	3.89	0.02	04	05	01
22168	3.63	3.66	-0.03	08	08	00
22170	4.17	4.12	0.05	04	01	-03
22171	3.46	4.21	-0.75	04	04	00
22172	3.60	3.40	0.20	07	07	00
22173	3.44	3.19	0.25	07	05	02
22174	3.74	4.09	-0.35	05	04	01
22175	3.54	3.80	-0.26	03	16	13
22201	3.69	3.54	0.15	03	05	02
22202	2.71	2.94	-0.23	10	09	-01
22203	3.23	3.29	-0.06	08	09	01
22251	3.03	3.26	-0.23	05	02	-03
22252	2.80	2.67	0.13	07	02	-05
22253	3.49	3.43	0.06	06	07	01
22254	3.91	3.91	0.00	03	04	01
22255	3.49	3.63	-0.14	07	06	-01
22256	3.89	3.66	0.23	03	04	01
22257	4.06	3.91	0.15	01	05	04
22258	3.26	3.20	0.06	08	07	-01
22259	3.37	2.83	0.54	03	04	01
22260	3.74	4.03	-0.29	07	02	-05
22261	3.77	3.63	0.14	06	04	-02
22263	3.20	3.09	0.11	06	07	01
22264	3.37	3.20	0.17	06	10	04
22265	4.31	4.29	0.02	05	05	00
22266	3.63	3.37	0.26	05	03	-02
21150	4.09	3.91	0.18	08	06	-02
21151	4.32	4.43	-0.11	03	03	00
21152	3.43	3.44	-0.01	04	03	-01
21153	3.91	3.91	0.00	01	06	05
21154	4.40	4.31	0.00	05	04	-01
21155	3.51	3.26	0.25	04	10	06
21156	3.83	3.56	0.27	06	05	-01
21158	3.77	3.80	-0.03	04	03	01
21101	3.09	2.91	0.18	07	12	05
21102	3.46	2.91	0.55	04	06	02
21103	3.97	3.68	0.29	04	02	-02
21104	3.49	3.40	0.09	06	12	06
21105	3.31	3.24	0.07	05	06	01
21106	2.37	2.54	-0.17	09	13	04
21107	3.57	3.43	0.14	06	10	04
21108	3.71	3.77	-0.06	08	03	-05
21109	3.66	3.09	0.57	06	08	02
21111	3.40	2.68	0.72	04	05	01
21114	3.17	3.26	-0.09	07	[illegible]	-04
21116	2.97	3.11	-0.14	05	06	01

21118	2.85	3.23	-0.38	11	11	00
21119	2.97	2.74	0.23	05	04	-01
21121	3.29	3.54	-0.25	06	04	-02
21122	3.49	3.47	0.02	05	10	05
21201	3.71	3.34	0.37	07	07	00
21202	3.29	3.26	0.03	06	04	-02
21203	2.86	2.91	-0.05	09	12	03
21204	3.31	2.77	0.54	08	08	00
21205	3.40	3.46	-0.06	05	04	-01
21206	3.34	3.32	0.02	06	05	-01
21207	2.63	2.79	-0.16	09	06	-03
21208	2.66	2.71	-0.05	05	05	00
21209	2.40	2.27	0.13	13	08	-05
21211	3.18	3.13	0.05	07	05	-02
21251	3.69	3.41	0.28	06	08	02
21252	4.17	4.23	-0.06	07	04	-03
21253	3.49	3.11	0.38	06	07	01
21255	3.64	4.04	-0.40	03	00	-03
21256	3.77	3.71	0.06	07	04	-03
21257	3.71	3.68	0.03	04	05	01
21258	3.60	3.54	0.06	05	07	02
21259	3.46	3.29	0.17	02	07	05
21260	3.89	3.70	0.19	07	03	-04
21261	2.86	3.34	-0.48	05	08	03
21262	3.43	3.54	-0.11	03	06	03
21263	3.80	3.73	0.07	05	04	-01
21264	4.17	4.09	0.08	06	05	-01
21265	3.91	3.69	0.22	01	06	05
21266	3.69	3.66	0.03	07	06	-01
21267	3.94	4.03	-0.09	06	04	-02
21268	4.11	4.09	0.02	03	02	-01
21180	3.81	3.92	-0.11	07	01	-06
21181	3.80	3.51	0.29	04	02	-02
21182	3.76	3.30	0.46	03	09	06
21184	3.32	3.74	-0.42	10	02	-08
21185	3.86	3.83	0.03	04	06	02
21187	3.29	3.17	0.12	09	12	03
21188	3.83	3.94	0.11	03	04	01
21189	3.57	3.89	-0.32	12	04	-08
21190	3.40	4.11	-0.81	15	15	00
21191	4.31	4.37	-0.06	04	03	-01
21192	3.66	3.83	-0.17	07	08	01
21193	3.91	4.51	-0.60	05	03	-02
21194	3.83	3.83	00.00	07	03	-04
21195	4.09	4.29	-0.20	06	06	00
21230	3.20	3.66	-0.46	05	07	02
21231	3.46	3.57	-0.11	05	06	01
21232	4.03	4.69	-0.66	07	05	-02
21233	2.91	2.71	0.20	10	08	-02
21234	3.63	3.74	-0.11	04	10	06

21235	3.40	3.09	0.31	07	09	02
21236	3.40	3.46	-0.06	07	04	-03
21237	2.60	2.31	0.29	10	11	01
21238	3.00	2.97	0.03	12	06	-06
21239	3.97	4.60	-0.63	06	07	01
21240	2.82	3.77	-0.95	09	07	-02
21241	3.40	3.32	0.08	09	08	-01
21242	3.60	3.80	-0.20	16	04	-12
22230	3.74	3.44	0.30	07	07	00
22231	3.40	3.51	-0.11	03	02	-01
22232	3.56	2.96	0.54	05	07	02
22233	3.50	3.53	-0.03	01	05	04
22234	2.88	3.26	-0.38	08	08	00
22236	2.66	2.91	-0.25	00	11	00
22281	3.63	2.60	1.03	08	10	02
22282	3.66	3.71	-0.05	07	08	01
22285	3.66	3.50	0.16	10	11	01
22287	3.68	3.65	0.03	05	06	01
22288	3.94	3.79	0.15	04	07	03
22290	3.76	3.74	0.02	05	03	-02
22180	3.52	3.52	0.00	04	06	02
22181	4.09	4.40	-0.31	04	08	04
22184	4.03	3.63	0.40	04	09	05
22186	3.71	3.40	0.31	05	10	05
22187	3.97	3.77	0.20	07	07	00
22188	4.00	4.03	-0.03	15	03	-12
22189	4.20	3.91	0.29	07	07	00
22190	4.09	4.34	-0.25	04	05	01
22130	3.37	3.34	0.03	07	05	-02
22131	3.22	3.54	-0.32	07	06	-01
22132	2.51	2.14	0.37	10	07	-03
22133	3.46	3.73	-0.33	08	06	-02
22134	2.63	3.19	-0.56	07	10	03
22135	2.78	3.25	-0.47	05	06	01
22136	3.71	3.79	-0.08	06	04	-02
22137	3.03	3.06	-0.03	03	05	-02
22138	3.54	3.32	0.22	05	06	01
22139	3.82	3.77	0.05	03	04	01
21280	3.91	4.46	-0.55	04	05	01
21281	3.71	4.12	-0.41	08	07	-01
21282	3.71	4.23	-0.52	02	11	09
21283	3.89	4.17	-0.28	02	02	00
21284	2.26	3.21	-0.95	10	07	-03
21285	3.29	3.48	-0.19	07	06	-01
21286	3.69	3.83	-0.14	03	04	01
21287	4.40	3.37	1.03	06	16	10
21289	3.34	3.91	-0.57	07	06	-01
21290	3.06	3.74	-0.68	11	17	06

21131	3.27	4.00	-0.73	16	09	-07
21133	3.34	3.12	0.22	18	02	-16
21134		2.26	0.00			00
21135	3.34	3.58	-0.24	02	04	02
21137	3.14	2.91	0.23	01	03	02
21138	2.54	2.67	-0.13	10	13	03
21139	2.71	3.21	-0.50	08	10	02
21140	3.35	3.24	0.11	12	11	-01
32230	3.37	2.59	0.78	07	05	-02
32231	3.15	3.54	-0.39	06	08	02
32233	3.60	3.69	-0.09	03	07	04
32234	3.57	3.63	-0.06	08	08	00
32235	3.66	3.53	0.13	04	04	00
32236	3.25	3.17	0.08	04	11	07
32237	5.00	3.57	1.43	00	09	09
32238	3.09	3.09	0.00	07	07	00
32240	3.60	3.35	0.25	07	07	00
32241	3.46	3.31	0.15	05	07	02
32243	2.83	3.26	-0.43	06	04	-02
32244	3.12	3.09	0.03	14	04	-10
32280	3.54	3.46	0.08	06	05	-01
32282	4.20	4.37	-0.17	05	06	01
32283	4.11	3.89	0.22	08	09	01
32284	3.86	3.89	-0.03	04	04	00
32285	3.97	3.66	0.31	10	07	-03
32286	3.86	3.89	-0.03	11	08	-03
32287	3.83	3.86	-0.03	09	11	02
32291	4.00	4.49	-0.49	05	05	00
32292	3.37	3.54	-0.17	10	04	-06
32293	4.17	3.89	0.28	06	04	-02
32294	4.11	4.14	-0.03	02	03	01
32295	3.23	3.37	-0.14	01	02	01
31130	3.32	2.00	-0.32	02	00	-02
31131	3.51	3.55	-0.04	08	07	-01
31132	3.37	3.61	-0.24	08	08	00
31133	3.03	2.63	0.40	10	10	00
31134	4.09	4.26	-0.17	07	04	-03
31135	3.06	3.39	-0.33	06	06	00
31138	2.88	3.03	-0.15	07	08	01
31140	3.00	3.27	-0.27	14	09	-05
31141	3.34	3.74	-0.40	08	09	01
31142	3.54	3.74	-0.20	05	04	-01
31144	3.71	3.74	-0.03	04	09	05
31180	3.91	4.14	-0.23	04	04	00
31181	3.97	4.23	-0.26	05	09	04
31182	4.03	3.97	0.06	08	07	-01
31230	3.14	3.51	-0.37	06	06	00
31231	3.09	2.60	0.49	16	08	-08
31235	2.89	3.26	-0.37	05	09	04
31236	3.66	3.60	0.06	12	04	-08

32137	3.14	2.94	0.20	11	07	-04
31238	3.83	3.46	0.37	07	03	-04
31239	3.51	3.69	-0.18	06	02	-04
31280	3.91	3.80	0.11	04	14	10
31281	3.91	3.74	0.17	11	05	-06
31283	3.97	4.23	-0.26	06	03	-03
31284	3.17	2.91	0.26	04	05	01
31285	4.02	4.40	-0.38	02	02	00
31286	3.39	3.27	0.12	08	07	-01
31287	3.34	3.60	-0.26	10	03	-07
31288	2.94	4.29	-1.35	11	12	01
31289	3.88	4.03	-0.15	05	04	-01
31290	3.77	3.77	0.00	06	05	-01
3220.	3.17	3.29	-0.12	06	11	05
32202	3.63	3.37	0.26	09	12	03
32203	3.63	3.57	0.06	07	03	-04
32204	3.69	3.77	-0.07	07	09	02
32206	3.34	3.43	-0.09	03	06	03
32207	3.37	3.18	0.19	09	08	-01
32209	3.66	3.37	0.29	06	01	-05
32210	2.57	2.63	-0.06	07	09	02
32211	3.31	3.00	0.31	06	08	02
32212	3.49	3.23	0.26	09	12	03
32213	3.26	2.57	0.69	05	13	08
32214	3.53	3.46	0.07	04	08	04
32215	3.40	3.31	0.09	04	07	03
32216	3.14	3.00	0.14	05	08	03
32217	3.71	3.66	0.05	07	10	03
31101	2.89	3.12	-0.23	08	06	02
31102	3.69	3.77	-0.08	06	04	-02
31103	4.29	3.74	0.55	04	07	03
31104	3.31	2.06	1.25	07	04	-03
31105	3.34	3.29	0.05	04	04	00
31106	4.00	3.91	0.09	04	08	04
31107	3.63	3.36	0.27	04	01	-03
31108	3.43	3.71	-0.28	04	06	02
31202	3.97	4.14	-0.17	05	10	05
31205	3.03	2.83	0.20	03	04	01
31207	4.11	3.83	0.28	04	05	01
31208	3.79	3.49	0.30	06	04	-02
31209	4.17	3.51	0.66	02	06	04
31210	3.46	3.63	-0.17	04	09	05
31211	3.00	3.26	-0.26	10	05	-05
31251	3.46	3.43	0.03	07	18	11
31252	3.63	3.63	0.00	09	05	-04
31253	3.60	4.11	-0.51	06	15	09
31254	4.31	4.47	-0.16	07	03	-04
31255	4.06	4.17	-0.11	04	02	-02
31256	4.00	4.77	-0.77	04	12	08
31257	4.06	4.00	0.06	05	06	01
31259	3.80	3.74	0.06	07	04	-03
31260	4.17	3.86	0.31	05	06	01

31261	3.54	3.69	-0.15	03	02	-01
31263	4.06	4.00	0.06	09	04	-05
32104	4.29	4.17	0.12	03	18	15
32106	3.86	3.77	0.09	03	05	02
32107	3.51	3.70	-0.19	05	14	09
32108	3.74	3.74	0.00	04	07	03
32109	2.57	2.74	-0.17	05	06	01
32110	3.71	3.57	0.14	04	03	-01
32111	3.49	3.56	-0.07	10	07	-03
32112	3.29	3.26	0.03	03	06	03
32113	3.51	3.26	0.25	05	08	03
32114	3.74	3.54	0.20	03	14	11
32115	3.43	3.31	0.12	08	06	-02
32150	4.03	3.80	0.23	03	02	-01
32152	4.26	3.74	0.52	07	06	-01
32153	4.00	3.86	0.14	04	04	00
32154	4.20	4.88	-0.68	06	04	-02
32155	4.37	4.00	0.37	06	07	01
32156	3.89	3.79	0.10	09	08	01
31257	3.83	3.21	0.62	06	05	-01
32158	3.86	3.91	-0.05	03	06	03
32159	3.66	3.60	0.06	04	05	01
32160	4.17	4.29	-0.12	05	10	05
32163	4.49	4.39	0.10	05	04	-01
32164	4.23	4.40	-0.17	04	02	-02
32165	3.89	3.86	0.03	03	02	-01
32250	2.94	3.15	-0.21	11	08	-03
32251	3.06	3.14	-0.08	11	10	-01
32253	3.43	2.91	0.52	05	08	03
32254	3.66	3.40	0.26	06	07	01
32255	4.14	4.06	0.08	05	06	01
32257	3.94	3.68	0.26	05	06	01
32258	4.29	3.86	0.43	04	03	-01
32259	3.77	3.66	0.11	04	04	00
32262	4.11	3.94	0.17	08	06	-02
31150	4.00	3.62	0.38	02	19	17
31151	4.11	4.03	0.08	02	01	01
31152	3.66	3.97	-0.31	07	05	-02
31153	4.40	4.23	0.17	06	05	-01
31154	4.51	4.11	0.40	03	01	-02
31155	3.77	3.91	-0.14	03	06	03
31156	3.40	3.37	0.07	06	04	-02
31157	4.26	3.97	0.29	01	01	00
31158	4.23	4.46	-0.23	04	03	-01
31159	4.03	4.06	-0.03	08	07	-01
32130	3.56	3.47	0.09	07	04	-03
32131	2.79	3.03	-0.24	10	06	-04
32132	3.80	3.91	-0.11	04	02	-02

32133	3.26	3.17	0.09	05	04	-01
32134	3.51	3.14	0.37	08	08	00
32135	3.35	3.32	0.03	06	03	-03
32136	3.66	3.23	0.43	06	04	-02
32137	3.57	3.89	-0.32	01	04	03
32181	3.89	3.91	-0.02	07	10	03
32183	4.37	4.49	-0.12	02	07	05
32184	3.29	3.29	0.00	09	06	-03
32185	3.69	3.97	-0.28	07	03	-04
32186	3.77	3.83	-0.06	05	07	02
32187	3.56	3.37	0.19	06	14	08
32188	4.20	4.29	-0.00	07	04	-03
32189	3.32	3.17	0.15	05	04	-01
32190	3.89	3.83	0.06	06	07	01

Individual Student Data
Fifth Grade Continued

Student Number-Coded*	ATTITUDE SCORES			INFORMATION SCORES		
	Post-Post Measure C	Difference B-C	Difference A-C	Post-Post Measure C	Difference B-C	Difference A-C
11101	3.71	-0.25	-0.49	04	-01	01
11102	3.49	0.11	0.02	05	00	-05
11103	3.26	0.17	0.25	04	00	00
11104	3.40	-0.17	-0.63	04	-03	-04
11105	3.60	-0.07	0.20	05	02	02
11106	4.23	-0.37	-0.34	05	00	01
11107	3.80	-0.03	-0.17	03	01	-04
11108	3.23	0.04	0.26	06	-04	02
11109	2.40	0.26	0.66	11	03	05
11111	3.23	0.06	0.14	10	04	02
11112	3.06	0.41	0.28	06	04	01
11113	4.37	-0.23	0.09	06	01	-01
11150	3.86	-0.18	-0.20	02	-01	-02
11151	3.77	0.02	0.00	02	00	-02
11152	3.77	0.12	-0.17	04	-02	-01
11153	3.66	0.00	0.03	06	00	00
11154	4.29	-0.23	-0.32	04	00	01
11155	3.60	-0.06	-0.09	05	-02	00
11157	3.69	0.05	0.48	05	04	00
11158	2.94	0.06	0.60	09	-01	02
11160	4.00	-0.51	-0.06	06	03	-01
11202	3.40	-0.10	0.11	03	-01	00
11203	3.54	-0.26	-0.03	03	-03	-03
11204	3.63	-0.29	-0.06	04	-06	-02
11207	3.34	-0.28	0.12	07	03	-01
11208	3.26	-0.03	-0.29	05	00	-03
11210	3.57	-0.31	-0.31	05	-02	-02
11253	3.89	0.17	0.22	05	-01	00
11254	3.31	0.06	0.06	06	01	-01
11255	3.66	-0.29	0.00	03	-03	-02
11256	3.29	0.05	-0.58	05	-02	-02
11258	3.71	-0.28	0.09	03	01	-03

*01 to 49 = male, 50-99 = female; 100 = urban, 200 = rural; 1000 = experimental treatment group, 2000 = control group ; 10,000 = fifth grade, 20,000 = ninth grade, 30,000 = twelfth grade.

11259	3.71	-0.25	-0.05	06	-01	-01
11260	3.63	-0.17	-0.74	05	-01	-04
12101	2.37	-0.26	-0.40	10	01	-03
12104	2.49	-0.06	-0.20	11	-03	-03
12105	2.31	0.09	0.23	10	-01	-02
12106	2.74	-0.40	-0.40	07	-03	-03
12107	3.34	0.00	-0.48	03	-01	-01
12108	3.91	0.06	0.00	05	00	01
12150	3.74	-0.48	-1.00	02	-01	-06
12151	3.32	-0.01	-0.09	04	01	-02
12152	3.74	0.17	0.00	04	01	-01
12153	3.21	-0.33	-0.21	05	-03	-07
12154	3.31	-0.57	-0.28	03	-07	-05
12156	4.00	-0.03	0.34	04	-01	01
12157	3.71	-0.22	0.06	03	00	00
12158	2.89	0.25	0.22	11	06	05
12201	4.00	-0.06	-0.17	04	00	-01
12202	2.94	0.46	-0.14	08	-03	03
12203	3.31	-0.14	-0.25	05	-01	-02
12205	3.43	0.14	-0.34	03	-03	-02
12206	2.86	0.14	-0.39	12	03	03
12250	3.17	0.23	0.23	06	02	-01
12251	3.46	0.45	-0.16	04	01	01
12252	3.93	-0.02	-0.12	02	-02	-01
12254	3.49	-0.23	0.25	08	03	01
12255	3.37	-0/03	-0.11	07	02	01
12257	3.17	0.54	0.51	09	04	00
12258	3.49	-0.11	-0.21	04	-01	-04
12260	2.97	0.43	0.09	08	02	-01

APPENDIX F

Newman-Keuls Procedure
AB Interaction-Ninth Grade

APPENDIX __

Tests on Means Using Newman-Keuls Procedure for All Possible Pairs of Means in the AB Interaction for Ninth Grade Students' Attitude Scores

		Rural Control	Rural Experimental	Urban Experimental	Urban Control
Ordered Means		3.46	3.52	3.58	3.68
		Rural Control	Rural Experimental	Urban Experimental	Urban Control
Differences Between Pairs	Rural Control		.06	.12*	.22*
	Rural Experimental			.06	.16*
	Urban Experimental				.10*
$S_{\bar{B}}$ = .0258			r=2	r=3	r=4
q·95 (r,115)			2.83	3.40	3.74
$S_{\bar{B}}$·q·95 (r,115)			.073	.088	.096

*Statistically significant at the .05 level of confidence

A P P E N D I X G

Newman-Keuls Procedure
BC Interaction-Ninth Grade

APPENDIX __

Tests on Means Using Newman-Keuls Procedure for All Possible Pairs of Means in the BC Interaction for Ninth Grade Students' Attitude Scores

		Rural Postmeasure	Rural Premeasure	Urban Premeasure	Urban Postmeasure
	Ordered Means	3.48	3.49	3.59	3.67
		Rural Postmeasure	Rural Premeasure	Urban Premeasure	Urban Postmeasure
Differences Between Pairs	Rural Postmeasure		.01	.11*	.19*
	Rural Premeasure			.10*	.18*
	Urban Premeasure				.08*
	$S_{\bar{B}}$ = .0108		r=2	r=3	r=4
	q·95 (r,115)		2.83	3.40	3.74
	$S_{\bar{B}}$·q·95 (r,115)		.031	.037	.040

*Statistically significant at the .05 level of confidence

APPENDIX H

Newman-Keuls Procedure for
ABC Interaction for Ninth Grade Students

APPENDIX

Tests on Means Using Newman-Keuls Procedure for All Possible Pairs of Means in the ABC Interaction for Ninth Grade Students' Attitude Scores

Ordered Pairs**		8	3	7	4	2	1	5	6
	8		.07	.08	.13	.15	.16	.19	.35
	3			.02	.07	.09	.10	.12	.28
Differences	7				.05	.07	.08	.10	.27
between	4					.02	.03	.05	.22
pairs	2						.01	.03	.20
	1							.02	.18
	5								.16

$S_{\bar{B}}$ = .0108	r=2	r=3	r=4	r=5	r=6	r=7	r=8
q·95 (r,115)	2.83	3.40	3.74	3.98	4.16	4.31	4.44
$S_{\bar{B}}$·95 (r,115)	.031	.037	.040	.043	.045	.047	.048

	3	3	7	4	2	1	5	6
8		*	*	*	*	*	*	*
3			-	*	*	*	*	*
7				*	*	*	*	*
4					-	-	*	*
2						-	-	*
1								*
5								*

*Statistically significant at the .05 level of confidence
**The ABC interactive group conditions are numerically coded. That code is identified on the next page.

APPENDIX __ (continued)

The ABC intion conditions are numerically coded as follows:

Treatment Dimension	Urban-Rural Dimension	Repeated Measure Dimension	
Experimental	Urban	Premeasure	= 1
Experimental	Urban	Postmeasure	= 2
Experimental	Rural	Premeasure	= 3
Experimental	Rural	Postmeasure	= 4
Control	Urban	Premeasure	= 5
Control	Urban	Postmeasure	= 6
Control	Rural	Premeasure	= 7
Control	Rural	Postmeasure	= 8

APPENDIX I

Newman-Keuls Procedure
AB Interaction-Fifth Grade

APPENDIX __

Tests on Means Using Newman-Keuls Procedure for All Possible Pairs of Means in the AB Interaction for Fifth Grade Students' Attitude Scores

		Urban Control	Rural Control	Rural Experimental	Urban Experimental
Ordered Means		3.01	3.38	3.39	3.59
		Urban Control	Rural Control	Rural Experimental	Urban Experimental
Differences Between Pairs	Urban Control		.37*	.38	.58*
	Rural Control			.01	.21
	Rural Experimental				.20
$S_{\bar{B}}$ = .1225			r=2	r=3	r=3
q·95 (r, 48)			2.86	3.44	3.79
$S_{\bar{B}}$·q·95 (r,48)			.35	.42	.46

*Statistically significant at the .05 level of confidence

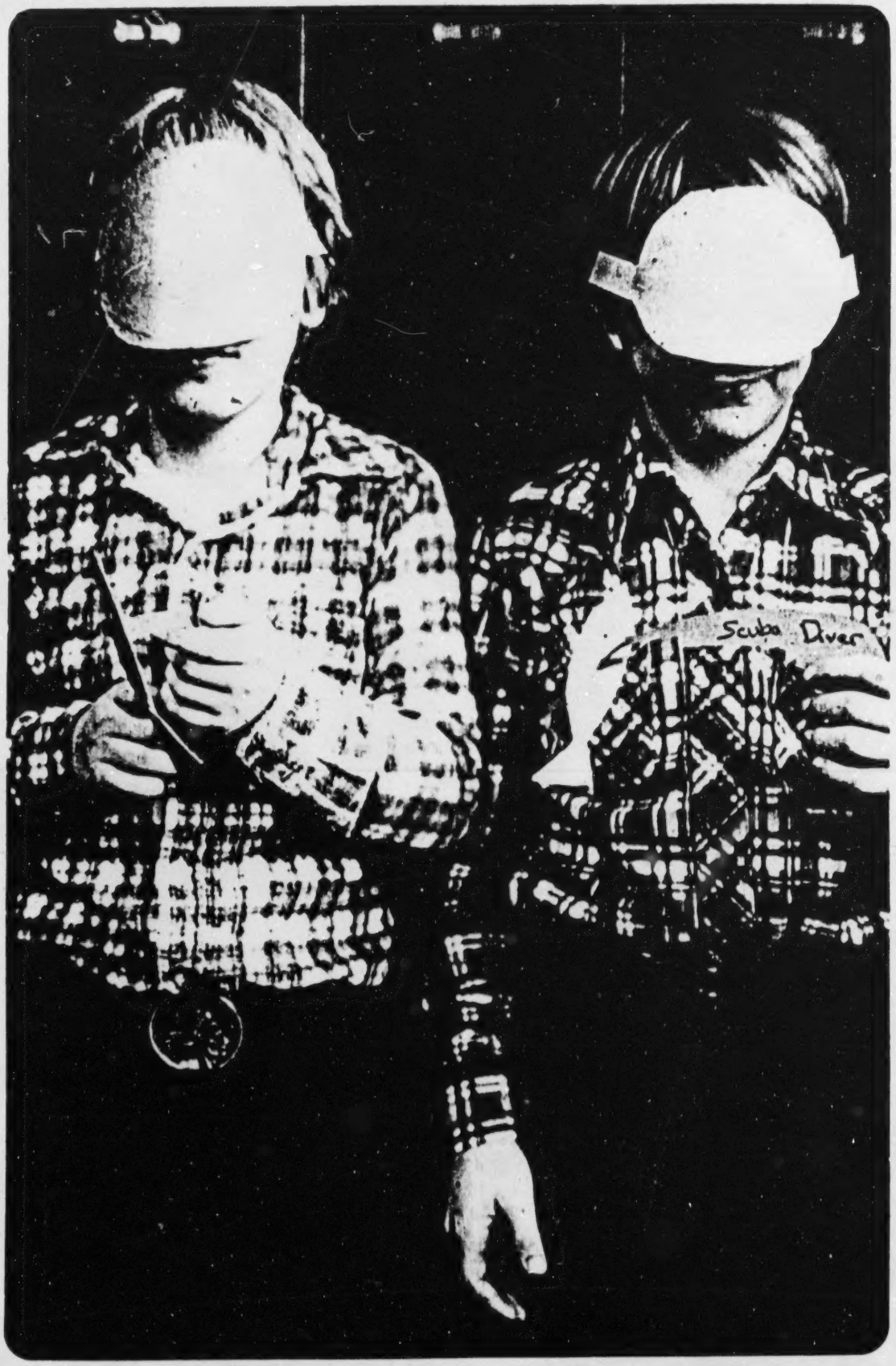
P I C T U R E S

Fifth Grade "Career Hats"

20

20

Scuba Diver


Scuba Diver

EYEDoctor

STIL